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ORIGINAL ARTICLES.

ON THE PHYSIOLOGICAL ACTION AND THERAPEUTIC USES OF TARTAR EMETIC.*

BY ALFRED C. POPE, M. D., LONDON, ENG.

DR. SIDNEY RINGER defines *tartar emetic* as "a protoplasmic poison which destroys the functions of all the organs of the body in the order of their vital endowments." He further states that "it paralyzes the central nervous system, the motor nerves, the muscles, and destroys sensation." (*Handbook of Therapeutics*, 10th ed., p. 283). These inferences, you will observe, are drawn from its ultimate effects. If we were in ignorance of the various steps and stages by which such terminations are reached, we should have but little to guide us in prescribing it in disease, and that little would be, to a very large extent at any rate, misleading. Dr. Ringer goes on to say that his "experiments, however, fail to show whether it manifests for all nitrogenous tissues an equal affinity, or whether it has a special action on some." To acquire this knowledge, so all-important to the therapeutist, systematic provings or experiments with small and gradually increasing doses, up to the limits of tolerance, can alone be relied upon. To prescribe medicines successfully, we must know their action just as we do the processes of diseases, viz.: by their at first slight, then more characteristic, and, finally, fully pronounced, indications or symptoms. By so studying a medicine, not only do we get a clear insight into its influence on the body, but we at the same time obtain more distinct ideas as to the course of disease itself—for a proving when carried to its fullest extent is the history of a case of disease, not indeed of one allowed to proceed to the *post mortem* room, but sufficiently far to be recognized, and when studied in connection with the *post mortem* revelations of an accidental poisoning by the same substance, it enables us to trace the disease progress from its earliest manifestations to its final stage. The study, then, of Materia Medica, after the manner of Hahnemann, not only gives us the most complete attainable knowledge of the properties of a drug, but is a direct aid in our investigations of the natural history of disease—in other words, of pathology.

The experiments, then, upon which our knowledge of *tartar emetic* are based, do enable us to ascertain very precisely, not only the tissues and organs for which it has an affinity, but also the manner in which this affinity is expressed, and the degree in which it exists in each.

By taking this drug in small doses, in such as those who only recognize in it a "nauseant," an "expectorant," or a "diaphoretic," would regard as "medicinal," or persevering for some length of time in using such as are infinitesimal, we learn that it has an affinity for the central organ of the nervous system; that it abnormally increases the metamorphosis of tissue; has an affinity for the salivary glands, the mucous membrane of the stomach, the intestines and the bronchi, and finally for the skin. In individual instances some phases of the drug's action are more pronounced than others, while in a few symptoms particularly prominent in the majority of provers may be entirely absent. But, taking the general run of cases of experiment and poisoning, we find that what we may term the *tartar emetic* illness commences with restlessness, sleep is full of dreams, followed by a sense of confusion in the head and pressure in the forehead; nausea: taste is bitter, and eructations of the same flavor occur, with a sense of pressure at the epigastrium. We next meet with chills, attended with a rapidly increasing prostration, to be followed after a time by cold and clammy perspiration. Then comes increase of the saliva, with oppression at the chest, slight at first but subsequently greatly increased, together with an excess of bronchial mucus, giving rise to audible mucous rales. The irritation of the mucous lining of the stomach increases. The tongue, at first brownish, becomes covered with a silvery white paste; bitter eructations are more frequent, the nausea more pronounced and attended with an inclination to vomit, waterbrash, salivation and thirst, terminating in the vomiting of a good deal of bitter-tasting mucus. The surface of the abdomen becomes tender on pressure, and diarrhœa of bright, offensive stools sets in.

Pari passu with these conditions, does the

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prostration increase, and the excretion of uric acid and urea become more copious. Lastly, itching of the skin and a papular eruption furnish the earliest manifestation of that well-marked and extensive pustular eruption which is characteristic of its action when large and long continued doses are taken internally, when it is injected hypodermically, as well as when it obtains admission to the tissues for which it has an affinity through inunction.

From the facts I have now set forth we learn that it is no specific form of fever that is typefied in the pathogenesis of *tartar emetic*, but a febrile movement of an adynamic character, sympathetic to and arising out of that specific irritation of one or more of the viscera which it occasions. We shall find as we proceed that wherever this irritation exists, whether in the brain, the stomach or intestines, the bronchi or the skin, it is attended by a febrile state, the characteristics of which are prostration and sweating, and that the intensity of the one bears a direct relation to the degree of the other.

Secondly, in reviewing the alterations in the health of the nervous system to which it gives rise, the first thing that strikes us is that in all provers the usual nightly sleep was disturbed by dreams of a more or less confusing character. Gross tells us that the prover dreamt constantly about incendiary fires, from which he was always trying to escape, but the fire seemed to break out in every place he went to.

Then we notice that headache is a more or less constant symptom in all phases of disordered health occasioned by *tartar emetic*, and is especially associated with the sickness it provokes. The head is described as feeling "confused." The pain as that of pressure, weight and tightness; and the locality, the vertex sinciput and forehead.

In provings there is a well-marked degree of mental depression, while in cases of poisoning this extends to absolute despondency and fear.

Post mortem examinations have shown that in one instance "the dura mater was very vascular; the longitudinal sinus contained a coagulum of lymph, but very little blood; the vessels on the surface of the brain were very much injected with dark blood, the whole surface having a deep purple appearance, and every portion of brain presented many bloody points on section. Cerebellum and medulla oblongata were also extremely vascular; there was no effusion into the ventricles." In this case there had been tetanic spasms as well as delirium during life. In other cases congestion of the membranes of the brain, with softening and congestion of its substance have been observed.

These cases show that under the influence of *tartar emetic* the central organ of the nervous system becomes the seat of a low type of congestion, both of its substance and membranes; that, as a result, the mental condition is one of restlessness, irritability, despondency and fear. We further learn that, when pushed to extremes, such a state develops delirium and convulsions of a tetanic character.

The only recognized pathological condition which the grosser of these symptoms resembles is delirium tremens. The cases in which it is useful are those where the delirium is especially marked by fear and anxiety, and where, at the same time, persistent nausea, followed by vomiting, diarrhœa, and cold perspiration, are prominent.

In prescribing this medicine, we shall at all times find our justification for doing so stronger when, in addition to the symptoms which appear especially to call for it, the patient complains of the kind of headache I have shown it to produce, together with restlessness and a certain amount of mental depression.

The stools, thin and watery, are always preceded by more or less pain, varying from slight griping to real colic and cramp similar to that present in cholera. Indeed, some cases of severe poisoning by *tartar emetic* have so closely resembled cholera in some of its most marked features as to have been mistaken for it.

It must be noted, in considering the vomiting occasioned by *tartar emetic*, that it is not simply the result of the influence of an irritant on the stomach, but that it follows a hypodermic injection of a solution of the salt as surely as when it is introduced by the mouth. Further, vomiting occurs when the pneumogastric nerves have been divided, even though the drug is introduced hypodermically. The mode in which *tartar emetic* operates in causing vomiting has been a source of frequent discussion, and, so far appears to me to be undecided still. The probable solution of the question, so far as present knowledge goes, is nevertheless that given by Dr. Brunton, viz.: that it occasions vomiting both by acting as a direct irritant to the stomach and also by its influence on the medulla.

Our next inquiry is, What are the conditions, observed clinically, that these effects resemble?

In the first place we see, in the phenomena occasioned by *tartar emetic*, the indication of a degree of more or less acute gastritis, of which the chief are a sense of pressure, or more or less acute

pain, somewhat burning in character, with persistent nausea and vomiting of a bitter, watery, viscid fluid, loss of appetite, great thirst, and a whitish brown or thickly furred white tongue, together with faintness, prostration, a readiness to perspiration, and a quick, weak pulse. Cases presenting such symptoms as these are met with in pregnant women. Its use in some cases of vomiting of pregnancy is further suggested by such symptoms as an extraordinary appetite for apples and juicy fruits and sour things—recorded by some of the earlier provers. Similar symptoms occur also in old, feeble, and long-ailing people who have suffered from circumstances giving rise to exhaustion, and in chronic alcoholism.

In all cases of this kind the vomiting is the symptom most calculated to arrest attention. It may be well, then, briefly to compare the kind of vomiting which is characteristic of the action of *tartar emetic* with that which is significant of some other drugs.

Arsenic gives rise to a vomiting which is more incessant than that produced by *tartar emetic;* it is attended with a greater degree of pain of a more intensely burning character, a red tongue and a quick, irritable pulse.

Phosphorus gives rise to severely painful vomiting of fluid, generally containing blood. The tongue is either dry, red, swollen and burning, or it is loaded with a dirty yellow fur, quite different from the white, pasty appearance which is so characteristic of the *tartar emetic* disturbance.

Bichromate of potash excites vomiting of a bitter, watery fluid, but it is in greater quantity than that arising from *tartar emetic*, and is attended with much more pain of a yet more burning character, and the tongue is covered with a thick, yellow fur.

Sulphate of copper produces much more incessant and forcible attacks of severely painful vomiting than *tartar emetic*.

In another group of medicines we have:

Ipecacuanha, where the vomiting excited is more abundant, consisting of large quantities of mucus; it comes on very rapidly; there is nausea, but comparatively little prostration, and it is practically painless.

Cocculus develops vomiting, almost always in association with vertigo. It occurs when raising the body from the recumbent position after a good deal of retching, and in moving about. The pain in the stomach which attends it is cramp-like.

Apomorphia provokes a vomiting which is characteristically sudden and profuse, and with little or no antecedent nausea.

Pulsatilla does not occasion vomiting except after food has been taken, and then not until an hour or so has elapsed after the meal.

Petroleum produces vomiting after a long-continued and profound nausea, but then it becomes violent, and consists chiefly of bile mixed with blood.

The gastric irritation, then, arising from *tartar emetic* most nearly resembles that produced by *arsenic*, *bichromate of potash* and *phosphorus*, but it is much less intense in its degree, though attended by greater prostration and faintness than either, and the burning pain so characteristic of the first and last is far less striking.

Associated with and speedily following the symptoms indicating *tartar emetic* in catarrhal or sub-acute gastritis, are similar suggestions that it is a remedy in some cases of gastro-enteritis. The abdominal tenderness, distension, and diarrhœa are of this type, while *post mortem* examinations justify the interpretation put upon them by revealing inflammation of the mucous membrane of the stomach, duodenum, and throughout the intestinal canal.

Among some of the earliest symptoms of the *tartar emetic* influence we find "tight feeling in the thorax, with hard, full breathing, increased secretion of viscid mucus from bronchi and trachea, with audible mucous rales."

It is, then, proved that *tartar emetic* produces in healthy persons symptoms resembling those characteristic of broncho-pneumonia, and that *post mortem* appearances in the bodies of men and animals poisoned by it are those which characterize this form of disease.

In what forms of bronchitis, of pulmonary congestion and inflammation are we then to select *tartar emetic* as a remedy? We must remember, first of all, that these pulmonary symptoms are associated with symptoms of prostration, or, at any rate, of great enfeeblement. It is not an active sthenic congestion or pneumonia that it occasions. *Secondly*, it is a congestion rather than a plastic exudation that it provokes. *Thirdly*, the bronchial expectoration is profuse and viscid. Consequently it is especially called for in the broncho-pneumonia of young children, in the intercurrent attacks of pulmonary congestion or bronchitis occurring during some chronic illness, which has already greatly debilitated the patient, in that which is occasionally met with in typhoid or typhus fever, and again in old people when great oppression of the chest, with incessant, almost choking cough, profuse expectoration, loud mucous rales, which need no stethoscope to detect them, proceeding from an accu-

mulation of mucus in the bronchi, free to move but difficult to expectorate, by reason of the general weakness of the patient—where symptoms such as these are present, *tartar emetic* may be ordered with every confidence that it will afford relief even when nothing beyond relief is possible to be given.

In œdema of the lung, which occasionally occurs from a rapidly developed congestion, but is more commonly met with in the course of acute or chronic nephritis, in some cases of emphysema in old and practically worn-out persons, when with a chronic cough there is profuse white and frothy expectoration and a gravely embarrassed respiration, it also gives a great amount of relief.

That *tartar emetic* has a distinct influence upon the nutrition of the skin is well known. Traditional medicine avails itself of this influence to produce counter-irritation when this process, it is thought, will be conducive to the patient's recovery.

The eruption of *tartar emetic* is, in the first instance, papular, attended with much burning and itching, and gradually becomes pustular with an inflamed areola around the pustules. It resembles the eruption characteristic of two forms of disease, viz., ecthyma and variola. And, further, there is a considerable degree of resemblance between the general or constitutional symptoms of the drug and those commonly present in these diseases. Dr. Nichol says:

"I look upon *tartar emetic* as being the chief remedy in simple, uncomplicated small-pox; but I have also used it most successfully in malignant cases which seemed beyond hope, when a low type of pneumonia had supervened and paralysis of the lung threatened.

"The *tartar emetic* eruption is so closely analogous to that of small-pox, that the one has been mistaken for the other by excellent observers. Then very similar pustules appear in the mouth and throat, and this can be said of no other remedy; and the low grade of pulmonary inflammation, with the tough mucus clogging the bronchi and windpipe, is eminently characteristic of a not uncommon type of small-pox. Lastly, the diminished fibrine of the blood of small-pox patients is closely met by a similar condition of the blood of individuals under the influence of *tartar emetic*. It is capable of being used for inoculation for pannus or trachomatous keratitis, after the manner of Jager, of Vienna."

Finally, in what dose should this medicine be given? We have seen that different orders of effects have arisen from doses of different magnitude, that the slighter symptoms, the earlier nervous phenomena, symptoms of gastric disturbance and of slight pulmonary irritation have been occasioned by comparatively small doses—such at any rate as were not likely to give rise to any danger to life; while the severer indications of nervous excitement, such as delirium and convulsions, the extreme phases of gastro-enteritis, and nearly all the manifestations of skin disease were the result of doses either destroying or nearly destroying life.

Regarding the therapeutic dose as one somewhat less than the physiological dose, we should, in cases resembling the first class of effects, prescribe the third decimal solution or trituration, and in the second the first centesimal. There is no question raised as to the power of a higher dilution, but the probability is that, as in Dr. Molin's proving, with the 18th dilution it required twenty-seven days to produce effects which Dr. Mayerhofer obtained in five with a centigramme, so in disease we may expect that a longer time will be occupied in securing the results we desire, the farther our dose recedes from the third decimal.

THE MEDICAL PROFESSION AND THE PEOPLE.*

BY PROF. S. LEAVITT, M. D., OF CHICAGO.

THERE is no vocation in life wherein one is more at the mercy of whims and idiosyncrasies than that of medicine; and, therefore, there is no subject in which physicians ought to feel a deeper interest than that of the attitude of the public toward them. The reputation and practice of physicians are most uncertain possessions: sometimes easily won, but much more easily lost. Lord Byron said he went to bed almost unknown and awoke to fame. This can more easily happen in literature than in medicine. Our road to success is usually hard and rough and long. Through wearisome toil and most exhausting devotion we secure the prize, and then find that only by constant vigilence can we retain it.

The public, in its opinion of the medical profession, should be divided into three classes, namely, 1. Those who have no confidence whatever in it; 2. Those who have excessive confidence; and 3. Those who occupy a position between these two extremes.

We meet some people whose faith in doctors does not measure a millimeter in any direction.

The ranks of the unbelievers have been considerably augmented recently by the addition of a large number of weak-minded men and credulous

*An abstract from *The Clinique*.

women, who are loud in their praise of what has wrongly been called "Christian Science."

The physician is prepared to admit that there are elements of truth in what these apostles of mental medicine teach, for they have long known them, but under other names. What has now gone forth to delude mankind under the title "Christian Science," we recognize as mesmerism, animal magnetism, or, as it has been called by the more scientific, hypnotism.

The second class is composed of those who seem to believe that the physician has become so familiar with the secrets of nature that disease, in nearly all its phases, has been put completely under his control. Their summons to the physician is not always promptly issued, but they expect his efforts, when invoked, to work a perfect cure, and will tolerate nothing less.

In the same class we find some who not only expect the physician to effect a cure, but who insist on his doing so in the shortest possible time. In their opinion a few dollars constitute ample compensation for the preservation of one human life.

Patients sometimes come to us, saying that they have ailments involving certain organs, and desire us to set things in proper order; and this they do with an air which shows very clearly that no doubt of our ability to do as they suggest for a moment enters their minds. Another wants his blood cleansed. He says the vital fluid is impure, and he would like something to clarify it. Poor fellow! he knows not what he asks. Wherewith shall a doctor cleanse the blood? In what respect is his blood impure? Oh, that people could have their ideas of pathology sifted! The blood impure, and physicians the scavanger agents!

What a relic of the dark ages! We smile at the ignorance and credulity of such people; but do they deserve to be made the butt of our mirth more than those of our own colleagues, who believe the 200th or 2000th attenuation of *pulsatilla* capable of turning the child in utero?

Then there is the third class, made up of those rational minds who look upon physicians as neither little gods nor little fools. They remember that we are all falible, and, while sentient, are not omniscient. It is always refreshing to meet them, and I am often led to the mental exclamation, "Oh, that all people were almost and altogether such as these!"

But why does this marked dissonance of opinion exist? Why are there such prejudices against modern medicine? Doubtless, much may be attributed to mental differences. There are no two minds precisely alike in capacity, in culture, and in habits of thought. We recognize in this a wise provision of a kind Providence for the happiness of mankind; but some are led by it into error, and hence into misery. In view of these differences, we cannot indulge a rational hope of unifying people in their acceptance of any single method of cure, no matter how conclusive the demonstration of its efficacy.

There is a second, and quite as potent, a cause of medical skepticism, which proceeds from extravagant confidence of the physician in his own skill and the remedies which he prescribes. This, most commonly, is an accompaniment of inexperience; for the physician, like the philosopher, as he advances in age and wisdom, comes to feel more and more that, in his utmost acquirements, he has only been picking up the shells and pebbles on the beach, while the great ocean of truth stretches out before him. "A little wisdom," says the old saw, "makes us wondrous wise." The force of this irony is well illustrated in the young practitioner of medicine, who leaves his *alma mater* with a conscious ability to cure every ill which afflicts mankind. He has immoderate confidence in himself; and why not, after three years of hard study? He has unwavering trust in his remedies; and why not, after their powers and indications have been so clearly delineated by his instructors? His first few cases increases his enthusiasm, for he can truly say, "*Veni, vidi, vici!*" But soon, on his way from Jerusalem to Jericho, he falls among thieves, who strip him of his fine garments of assurance, and leave him nothing but rags of distrust. He knew that he could; but he has found that he could not.

The scales have now fallen from his eyes, and looking at things in a more subdued light, he makes no promises and offers little encouragement. Thus, from one extreme he easily oscillates to the other, only to find his would-be patients going off to others, who animate them with stronger hopes.

A third cause I set down as sheer dishonesty. There is not the slightest doubt in my mind that thousands of dollars are made every week, in this city alone, from treatment of clearly-recognized incurable disease, as well as ailments which exist only in the minds of the patients and the declarations of the physicians. There are circumstances under which treatment of incurable disease is clearly wise and honest; but these remarks are aimed at those who willfully deceive both the patient and his friends for the fees which such baseness brings.

"How oft the sight of means to do ill deeds
Makes ill deeds done!"

The fourth cause which I shall mention is want of exactitude in practice. Physicians are peculiarly prone to fall into careless habits and routine methods. Though they do, still, through tact and affibility, they are often capable of attaining success from a business point of view, but almost surely they make many skeptics, and bring reproach upon the profession. Physicians doing a large business are quite certain in their hurry, unless continually on their guard, to overlook essentials and do injustice to their patients. Owing to lack of time for proper investigation, their tendency is necessarily toward synthesis, without prior adequate analysis.

But, we inquire, is this unfortunate state of things remediable, and, if so, what are the remedies? In view of the causes and environment we can not effect a permanent cure; but, if physicians would unite their efforts to secure it, there is no doubt that great improvement might be effected. The trouble is there are so many of us, and we are so unlike in incapacity, training, in moral sensibility, as well as in fortune and ambition, that unison of action is out of question. Medicine, like music, seems to foster jealousy. Doctors proverbially disagree. Nevertheless, as individuals, and sometimes in detachments from the main body, we may promulgate reform, and if we cannot wholly overcome the evil, we may greatly modify it.

The middle class before described, composed of those who think soberly and rationally of us, is the ideal class to which we would like the others to conform. The third class, made up of those who think of us more highly than they ought to think, we can tolerate. It follows, therefore, that my remarks on treatment will have special reference to reform in the first, or skeptical, class.

To proceed, then, with a consideration of remedies for the disorder, I say, first: Let physicians observe strict candor toward their students, both in college and out. We love to wear an air of conscious ability before learners, but from neither our bearing nor our teaching should they be led to infer that, in medical practice, all is smooth sailing. They should be told that there are rocks which no human eye can discern, there are currents and counter-currents the effect of which no human sagacity can predetermine. They should be given the compass as an excellent guide, but be emphatically advised of its variations.

*Students should be taught also that there are certain emergencies which simple remedies will not satisfactorily meet, and for which certain adjuvants and expedients are essential. Child-like reliance, under all circumstances, on strict homœpathic remedies, unaided and alone, is what, in some quarters, has made people so doubtful of the efficacy of our mode of cure. Let physicians be frank in their teaching without regard to the effect on homœpathic claims. If animated by true motives, we are not endeavoring solely, or mainly, to establish the verity of certain dogmas; but, like honest philosophers, we are seeking the truth, the whole truth and nothing but the truth. We feel sure that a grand and simple principle of cure for disease has been discovered; but we do not yet know that it is universal, and applicable to all organic and inorganic substances now employed as remedies.**

We are reluctant to confess our powerlessness in the management of some diseased states; but the truth remains that medicine, as understood and practiced by physicians of any school, is not an exact science. An eminent and popular French surgeon, long since gone, when highly praised for his skill, used to say to the suffering soldiers on whom he practiced, "I can dress your wounds, but Heaven must heal them."

"Well," I hear some one say, "would you have us confess our weakness? Is it not better to proudly assert our power and let each undeceive himself?" No, no, my friends. The practice of medicine would be not only more agreeable, but more honorable and honored, if there were eliminated from it the mysticism with which, in the minds of the credulous, it has always been surrounded. Let us get as far as possible from the divination of the "medicine man," and fairly on a scientific basis: for then we shall be much better pleased with ourselves, and others will be far better pleased with us. On proper occasions we may wisely point out to students our inability in certain directions, while, at the same time, recent remarkable improvements in medicine and surgery are stated, so that they, at least, may get an intelligent conception of what the results of practice really are.

Indications for Cocaine.—The practical lesson which Dr. Hunter McGuire, of Richmond, Va., has learned about cocaine is that it is useless when acute active inflammation affects the part to be operated on. Secondly, it is practically useless when applied to thin tissues that have no material amount of cellular tissue about them. Thirdly, that it is valuable when operating on other tissues that are chronically diseased without acute inflammation, especially parts that are covered by mucous membrane, as polypi about the rectum, uterus, vagina, lips, &c. It is useful for warts, &c.

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*Italics our own.

NOTES ON SEASICKNESS.*

By W. Y. Cowl, M. D., New York.

IN ACCEPTING the invitation of your host to make a few remarks before you this evening, I have thought that you might take interest in some notes on seasickness, which were chiefly gathered during and after the late storm that disabled the Anchoria.

In detailing my observations, I will consider that you, my hearers, are exempt from this peculiar form of weakness, although I feel that most of you may be hearing something trite, for you have doubtless attended patients with this disorder, and are aware of some of its vagaries.

I shall not, therefore, weary you with a lengthy description of the headache, the lassitude, the depressed circulation and the various irregularities of action on the part of the stomach and intestines, beyond the remark that, after the nausea and vomiting, constipation is the chief symptom. It will, consequently, be my aim to note some points that seem to be new, or which, at least, are not current, upon the subject.

But before so doing, allow me to emphasize the value, as a prophylactic, of going aboard ship in what we may call a tonic condition, namely, not under the normal tone from either work or worry. The plan, indeed, of comparative rest both before and after the start, and until the organism is well accustomed to the change, is altogether a wise one for those who dread the sea or who do not wish to spend some time below the gangway.

Another precaution, especially for those of a full habit, is to make the diet somewhat spare and simple for a day or two before and after the beginning of the voyage; for between the confined air at night in most staterooms, the disturbing effects of the motion upon the circulation and the general change of habits, the group of symptoms which we know as biliousness is especially apt to supervene within the first few days at sea.

This biliousness is often fostered by a diminution in the amount of fluid taken while such a tendency to diminution is favored by several changes from the life on land. For instance, as the sea air is more moist, transpiration from the surface is diminished and less water is lost. This likewise diminishes the normal excretion of effete matter by the skin and favors biliousness.

Less physical exercise is taken thän on land.

The atmosphere, as a rule, is much cooler, and a cooling breeze is generally blowing; thus, thirst diminishes, and cold water becomes less enticing. Wine and beer are apt to be taken at meals instead of water. These all conspire to the same end.

A neglect, then, to watch himself, on the part of the individual, often ripens the natural tendency to irregular physiology, caused by the change. Seasickness, in the majority of cases, is probably developed upon such a change of condition.

The time, then, for a person to treat the *Mal de mer* is mainly before it becomes objective.

Let the traveler's habits be regular, his hours early, his exercise considerable, his diet sparing, his foods few and simple, and his drink the same, and he will generally avoid distress in ordinary weather.

If he will in addition take something sustaining each morning on rising from his bunk, or even before doing so, he will probably also withstand the ill effects of what is called a "sea." This measure, and a turn on deck, will likewise put him in condition to enjoy and digest his breakfast.

It is a matter of observation, that few are sick of a morning until after breakfast. If then, one have taken something before this, when able to rest until the benefit is felt, the most susceptible time of day will be more safely passed.

On the other hand, a person who, after the exertion and disconcertment of dressing in a room with a moving floor, seeks the table, and with the usual lack of judgment under the circumstances, orders ham and eggs, and following the example of the captain, keeps it company with a cup of coffee, is quite apt to remain below and ponder on the vanity of human life, instead of promenading the deck, perchance, with the quiet contentment of the regular traveler, who has made a modest meal of porridge and fish, or toast without butter and a bit of lean meat, and abstained likewise from fluid ingesta, if the sea be high, with the exception, perhaps, of a glass of milk and plain soda.

Those who are desirous of remaining in what I have called a tonic condition, will govern the latitude they give themselves as to eating and drinking according to the weather, knowing that when the sea is rough, the air below close, or the thermometer rapidly rising, a simple diet and careful habits will keep their heads clear and their stomachs in order.

But now as to the thing itself. Seasickness. What is it? We cannot say that any accepted answer is yet recognized. We view it largely as an indefinable, pathologically speaking, and we treat it mostly as an irremediable, therapeutically

* Read before the Clinical Club, November 18, 1886.

speaking. It is certainly functional. It is always 'finnical.'

There are, however, certain facts which are, I believe, to be confirmed by observation, that point to the circulation as the initial seat of the disturbance, and certain others that indicate the sympathetic system as the suffering part. Prominent among these latter is the greater frequency and severity of the disorder in those who are by nature most sympathetic or less stout of heart, such, for instance, as women in general, and persons of the Latin races.

The reasons that lead me to believe the circulation to be primarily affected are, that those who have staterooms where the pitching of the vessel is most felt, namely, either forward or aft, are usually much more sick than those near the middle of the ship, and that in a number of cases under my own observation the beginning of the peculiar morbid sensations preceding each attack of vomiting always immediately followed a *dip* of the prow or stern, as the case might be, and not a roll from side to side. Now it is the latter motion that especially disconcerts one's movements, for while the pitching simply lifts one up and down, the rolling throws one about. The latter, therefore, is the source of more violence, uncertainty and dread. It is also sudden in its wind up.

It is not then the uncertainty of the movement nor the violence of it that produces the peculiar feelings at the stomach, which after an increase of a few minutes result in emesis.

We cannot then consider that the nervous system is primarily affected.

What, on the other hand, is the effect of the two kinds of motion upon the circulation, if any?

I think we may gain a clue to this matter if we consider that running in an almost direct line from the brain to the pelvis we have a large continuous vein, which, like other veins, is easily distensible, while the current of blood within it is comparatively slow, and therefore easily disturbed.

Now the peculiarity of it is that the current is not one but two, namely in the upper half the flow is downward, and in the lower half upward. These two currents come together at the heart, which, as you are aware, is hung upon the two venæ cavæ very much like a lateral aneurism that draws the vessel slightly toward it at the junction, whilst preserving a free connection between the contents of the two cavernous veins.

Now we will not consider this a physical defect, for in ordinary jumps and falls it is to be supposed that nature makes provision for preventing the sudden motion from unduly disturbing this long blood column; but in the present case we have, as I think you will admit, in the rising and dipping of a ship's prow, a different motion—less simple, more unmeasurable. Its distinguishing mark, in fact, is that it is a *reversed* motion.

As we go up, nature within us makes provision against the back set of blood into the inferior vein. Then, if we are in a sure position and perceive when the down trip is about to begin,—as can generally be done on deck—we may have time to forestall that motion also; but when we are below, in an uncertain atmosphere, with a headache, and amid the sounds of stomachic regurgitation in our fellow-passengers, the sudden dropping away of the floor beneath us, which a moment before was boosting us like a brother, causes us to lose our bottom and give up. After this we lie down, which we should have done before.

Now we are horizontal, and it is evident, if we reflect, that being out of the axis of motion, either rolling or pitching, we are not liable to be affected by any ordinary reversal of movement. Thus, a high rise followed by a quick dip will not tend to first deplete and then surcharge the veins of the head, with resulting disturbance of the nervous action.

Respecting this point we may note that some ship surgeons consider the head to be more at fault than the stomach in seasickness.

That it is, however, the sudden change of motion, and not the mere downward movement that disturbs us, we may be led to believe from the experience of passengers in elevators. It is seldom that persons express feelings of sickness from simple downward or upward motion, even when rapid; but complaint is not infrequent when, in order to reach a level in stopping, the load is subjected to one or two changes of motion.

With this brief consideration of the pathological aspect of seasickness, let us turn to the clinical side, and the management of the disorder. Perhaps I can illustrate this by a case which I had the best opportunity of observing.

The patient, in common with his fellow-passengers, was awakened, early on the morning of September 26th last, by the violent rolling of the ship, which prevented his retaining any one position in his berth, unless braced in place with luggage, etc. This state of things continued for twenty-four hours, when the storm began to abate. Having been previously untroubled with seasickness, except for a moment on a former voyage, he rose as usual half an hour before breakfast, but omitted to take a dose of stimulant as on previous mornings. At breakfast he missed his usual appetite, yet ate some oatmeal porridge.

This he partly lost on leaving the table, and feeling the full effect of the pitching of the vessel, which was much more disturbing when in the erect position, and could not be fought like the roll sidewise.

Concluding, then, that discretion was the better part of valor, he lay down for the morning. The symptoms then ceased, except the lassitude.

On rising now and again and walking about a bit, the sensation of sickness would begin in the abdomen, and after increasing for from one to three minutes, eventuate in visible evidence.

It was soon found that, on immediately lying down, the symptoms would pass over; but if reclining was deferred, additional means were needed to conquer the internal workings.

The additional means employed was rapid, deep respiration, prolonged until the sickly sensation, the increased flow of saliva and the feeling of disturbance in the abdomen had ceased.

The deep respiration had been used on a previous occasion as a ready means of drowning the "welling up" feeling with entire success, and had been recommended to other patients who continued to employ it with relief.

The measure, however, was not so easy of application as its simplicity and readiness would seem to indicate; for, what with the distraction of the morbid sensations, which cause one to breathe less freely, and the exertion to retain one's equilibrium, it requires considerable will power to persist until the symptoms pass over. If this be done, nevertheless, the relief is prompt and decided. It seems to break up the contractions of the stomach and intestines before they reach their culmination in vomiting.

To conclude the history of this case, the patient found himself able to digest a lunch whilst in the horizontal position, and was soon after able to walk about, notwithstanding the continuance of the storm. The further meals were regularly taken.

Other cases coming under observation were of a generally similar character, and similarly broken up. The ship's surgeon relied but little on medicine outside of cathartics. His experience had shown him that persons with a weak heart were especially apt to be sick, and recovered less quickly and fully. The same, in a greater measure, as true of pregnant women, although some withstand prolonged sickness and fasting with remarkably slight effects.

Small children and topers possess an almost complete immunity.

Finally, respecting the internal management let me say, that for those who suffer inordinately, nourishment or stimulent conveyed in carbonated drinks, such as champagne, or milk and plain soda, may be the only articles retainable. Effervescent drinks are grateful in general, and a bottle of ginger ale or flavored soda-water will often both quench thirst and calm the stomach.

I have little faith in therapeutic measures for the relief of seasickness, as I do not consider it a disease condition, and believe it substantially depends upon the sudden change from *terra firma* to *argo infirma*.

My remarks have not included any reference to the supreme importance of remaining on deck as much as possible, for you all know too well the value of fresh air in any disorder to need my commendation of it. Respecting obedience to this rule, I may simply allude to the advisibility of an abundance of heavy overclothes and rugs, and the avoidance of much exercise when a patient is weak from fasting and sickness.

Hygiene of the Eye.—To what extent do our present methods of teaching during the first three years of school life comply with the demands of the hygiene of the eye? This question is asked by Steffan, who makes the following demands: Abolition of the German type; removal of all lines from slate and book; abolition of slate and pencil, or a white slate, paper and lead pencil; instruction first in reading, then in writing with the aid of blackboards; instruction in writing should not go so far as to make expert penmen; a neat, legible hand is sufficient; children *should not* be sent to school before the seventh year; abolition at the kindergarten of all work requiring close vision, of network, drawing, mat plaiting, stitching perforated figures and perforating. This question of hygiene of the eye is a very serious one to the Germans. Statistics show that one out of every four of the German population has some refractive trouble, and needs the assistance of glasses. The subject of eye-glasses in relation to increased civilization with increased application of the eye is exceedingly interesting. It is a fact that the older and more studious nations are subject to eye diseases to a much greater degree than the younger, less civilized and less studious.

The Search for Elements.—Several years ago a French savant reported to the Academy a very remarkable experiment. Taking a quantity of earth, he ascertained by spectroscopic and other tests the amount of sulphur present, and discovered in a similar manner the proportion of sulphur in a sample of onion seed. Seed from the package was planted in the earth, the vessel covered with a bell glass, distilled water introduced, and air forced in through the water. Germination occurring, the onions grew to maturity, and, though every precaution had been adopted to prevent the introduction of sulphur from without, the onions contained more than ten times the amount present in the seed and the earth.

If no mistake was made in this experiment, remarks the *Druggists' Circular*, the conclusion is inevitable that sulphur is a compound. He who can prove this conclusion by decomposing sulphur will earn more fame than would attach to the discovery of any number of metals of the type lately added to our catalogue of elements.

CLINIQUE.

A CASE OF MULTIPLE UTERINE MYOMA.—REMOVAL OF THE UTERUS AND APPENDAGES BY ABDOMINAL SECTION.—DEATH ON THE FIFTH DAY FROM EXHAUSTION.

BY H. I. OSTROM, M. D., NEW YORK.

Surgeon to Ward's Island Hospital.

THE FOLLOWING case of supra-pubic amputation of the uterus for multiple uterine fibroma, occurred during my July, 1886, term of service at the Ward's Island Hospital. To me it was a more than usually interesting case of hysterectomy; the interest arising not only from the rather rare form of the neoplasm, but also from the complications encountered during its removal, and from the entire absence of septic poisoning as a possible factor in the fatal termination. I have never operated on a case in which the adhesions were so strong or so general as they were in this instance, nor have I before found the fibroid development to so completely involve the uterus. Usually it is possible to throw the ligature about the lower segment of the cervex, and so obtain a firmer stump; but in this case the cervex was obliterated, and formed with the fibrous fundus and body, one continuous neoplastic mass, necessitating the application of the ligature to the vagina. The amputation was carried so low that, upon making a vaginal examination, the finger could not enter more than two inches of the canal.

The patient, aged forty-six, a widow, colored, was admitted to the hospital July 22. Her previous history included nothing unusual. Menstruation had always been regular, and at no time excessive. Ten years ago she first noticed a small hard tumor in the left epigastric region. It grew very slowly, and until within two years had given rise to no suffering. The tumor, at the time of admission, was as large as an adult's head, very hard and slightly nodular. My advice was strongly against an operation, for there was reason to apprehend extensive adhesions, and, as she was approaching her climacteric period, the chances were favorable for its natural removal. But the woman had decided to be operated upon, and therefore, with complete antiseptic precautions exclusive of the spray, which, however, was used in the room at intervals during the operation, I removed the uterus and appendages. The abdominal incision was over twelve inches long, this length being made necessary by the size and character of the tumor, which would not permit a sectional amputation. There were two tumors. The central one—that which involved the uterus—was hard, dense, slightly lobulated, and its capsule unusually vascular. This growth I found to be firmly adherent to other abdominal organs, and to include both tubes and ovaries, which were removed with it. The attachment to the bladder was very dense, requiring careful tearing to accomplish its separation. The vermiform appendix and the entire length of the colon were firmly adherent, together with a considerable portion of the omentum. These were carefully detatched, principally without the use of instruments, and the bleeding vessels tied, though the hemorrhage was not profuse, and the tumor lifted out of the abdomen by means of a large corkscrew driven into its center, the suggestion, I think, of Mr. Keath. A second, smaller tumor, grew from the left side of the uterine neoplasm. In detaching this there was considerable hemorrhage, necessitating the passing of a ligature deeply into the body of the larger growth. The intestines were kept within the abdominal cavity by large flat sponges pressed behind the tumor as the latter was withdrawn, or rather as the abdominal walls were pealed away from the tumor. The natural elasticity of the walls of the abdomen will permit this pealing process, and thus allow a tumor to be removed through a smaller opening than would otherwise seem to be possible. Owing to the involvement of the cervex in the morbid growth, and its adhesion to the rectum, I found considerable difficulty in applying the elastic ligature. This was finally secured around the vagina, and the tumor amputated by transfixing with a long bistoury from before, backwards, cutting outwards. The second flap was formed by beginning at the initial point and cutting in the opposite direction. A wedge-shaped stump remained, with the apex directed towards the vagina. It was intended to bring these flaps together after the method of Schroeder, but immediately upon the removal of the tumor the stump contracted to such a degree as to render this treatment of the pedicle impossible. The elastic ligature was therefore left in situ. After thorough irrigation of the abdomen with bi-chloride solution, and drying with sponges, a glass draining tube was introduced, and the incision brought together with silk and cat-gut, the latter sutures being made to include the peritoneum. The operation was completed in forty-five minutes. Reaction was slow. For two days there seemed some hope that the case would terminate in recovery; but the patient gradually sank, and died of exhaustion on the fifth day. At the time of

death the abdominal wound had healed, and on the second day after the operation, flatus was passed per rectum. At no time was there evidence of septic poisoning, the entire course of the case after the operation showing that at least this patient's system could not recover from the shock of so extensive a mutilation.

The tumor, after removal, was found to be composed of twenty-five or thirty fibroids embedded in the uterine parenchyma. The only trace of a uterine canal that remained was not large enough to admit an ordinary uterine probe. After the tumor had been drained of blood it weighed nine pounds. The size of the tumor, therefore, was not the cause of the fatal termination—its attachments, and the condition of its growth, were probably the most important factors in determining the results of the operation.

HOSPITAL REPORTS.

By Dr. H. I. Ostrom.
42 W. 48 St., New York.

Spontaneous Cure of an Ovarian Tumor (Mater Misericordiæ Hospital. Dr. More Madden).—A married childless woman was admitted to the hospital, with a greatly enlarged abdomen—it measuring forty-three and a half inches—which was exceedingly tender, and increasing gradually in size. The case was diagnosed a unilocular ovarian tumor. Because of the intense suffering to which it gave rise, the woman's strength was reduced to such a degree as to counterindicate an immediate operation, otherwise called for. While building her up with nourishing diet, preparatory to an operation, a profuse and incessant diarrhœa, and diuresis set in. The increased pain with which these discharges were preceded gradually abated, and at the same time the abdomen was observed to be much smaller, and the tumor could not be found. Improvement continued, and in about two months after admission to the hospital the woman was discharged with no trace of the cyst, her abdomen measuring twenty-nine inches. The cyst was believed to have been ruptured, and its contents absorbed by the peritoneum, and evacuated by the bowels and kidneys.

Three Cases of Thyrectomy (Metropolitan Throat Hospital Foundling Asylum. Clinton Wagner, M.D.).—Case I. was admitted with alarming dyspnœa and spasm of the glottis, caused by a large papilloma on the right vocal cord, and a membranous web that stretched from cord to cord. Dr. Wagner first performed tracheotomy, and followed it immediately by thyrectomy. The papilloma and membranous band—the latter was the result of a previous diphtheria—were cut away with the scissors. The boy was discharged cured five weeks after the operation. Case II. a girl, three years old, was admitted, with dyspnœa and spasm of the glottis, caused by a papilloma on the left cord. Tracheotomy was performed, but profuse venous hemorrhage caused such prostration that thyrectomy was delayed two weeks. At that time the tumor was removed, and in two months the patient left the hospital. Nineteen months after the operation the child was in "perfect health, and her voice clear and strong." Case III. a boy three or four years old had diphtheria, for which tracheotomy was performed. Five months after the operation the dyspnœa was so considerable as to call for immediate treatment. Dr. Wagner expressed the belief that there was obstruction of the larynx, and upon performing thyrectomy found a "membranous web" stretched across the tube. This was removed with the scissors and knife. The wound healed in twelve days. Two years later the child was well, and his voice naturally strong.

Removal of the Entire Lip for Epithelioma with a Successful Plastic Operation (Hahnemann Hospital, Chicago. G. A. Hall, M.D.).—A man, aged fifty-eight years, noticed, three years before admission, a small fissure near the left angle of the mouth. It became troublesome, and was much irritated by eating or smoking. The ulcer finally involved the entire lower lip, the sub-maxillary and sub-lingual glands. Dr. Hall removed the lip and glands, and built a new lip from flaps dissected from the cheeks. The recovery was rapid, and the patient returned to his home in four weeks.

Intussusception Treated by Inflation and Massage (Hospital for Sick Children, Great Ormond Street. W. B. Cheadle, M.D.).—Case I. A boy, five months old, presented the usual symptoms of acute intussusception. Enemas of warm water failed to reduce the tumor, which was situated in the left hypochondrium. Four syringe-fulls of air, were injected at the same time with the employment of massage. The effect of this treatment was to cause the tumor to disappear. In a few hours the swelling was again observed, though smaller than before. Inflation of the bowel with ten syringe-fulls of air, and the use of massage completed the cure. Case II. A boy, four and a half years old, suffered with abdominal pain, vomiting and bloody stools for six days, after which the bowels moved quite naturally, with temporary relief of the symptoms. Upon admission the abdomen was distended, and a sausage-like tumor found to occupy the lower epigastric region and left hypochondrium. Only bloody slime was passed from the rectum. Massage and inflation with Higginson syringe were carried out. The tumor disappeared, but the treatment was repeated, with the design of leaving nothing undone to effect a reduction of the intussusception. Owing to the rather chronic nature of the case, and the length of time before treatment was begun, the cure was rather tedious. Case III. A girl, six months old, had been in perfect health, until one day she suddenly began to scream, and could not be quieted. At the same time bright red blood and mucus passed from the bowels, and the milk taken was vomited. A movable firm tumor was found in the left side of the abdomen. Inflation and massage were adopted. The tumor disappeared and a rapid cure followed.

Goitre at Puberty (Hahnemann Hospital of Chicago. Dr. R. Ludlam).—The patient, a girl of fourteen, had been much improved by *calcaria phos.* The thyroid gland had become softer under the use of this remedy, and *spongia* four times a day.

Epithelioma of the Upper Lip Cured with Chian Turpentine (Queen's Hospital, Birmingham. John Clay, M.D.).—Mrs. W., aged fifty-two years, was admitted to the hospital with a growth involving the upper lip and lower portion of the left ala nasi. The microscope confirmed the diagnosis of epithelioma. Occasional hemorrhage necessitated the use of the perchloride of iron in solution, after which the ulcer was dressed with vaseline. Chian turpentine mixture, in two-teaspoonful doses, was administered

three times daily. Thirteen weeks after this treatment was begun, the mass separated. The ulcer became healthy, and the disease has not returned.

Femoral Aneurysm Cured After Eleven Hours Intermittent Digital and Instrumental Compression (Naval Hospital, Malta. Justin F. Donovan, M. D.).—A stoker while at work felt a sharp pain in the left groin, which was followed by a swelling at the same spot. An aneurysm was diagnosed. The man was placed on a low diet, and was given iodide of potassium. The parts were shaved and dusted with oxide of zinc, and digital pressure made over the external iliac artery for one hour and a half. The next day there was some improvement. Digital pressure on a pad, with a conical weight of seven pounds suspended from cross bars and resting on the pad, was applied for two hours and a quarter. The following day pulsation in the tumor was markedly diminished. The same digital pressure, reinforced by the weight, was applied for seven hours and a quarter, the patient being under the influence of morphine. At the expiration of this time all pulsation had ceased. The patient was weak, and his extremeties cold; he however reacted. Pulsation was not detected in the left tibial artery until seven days after the consolidation of the aneurysm. At the expiration of twenty-three days the tumor remained solid.

Post-pharyngial Abscess and Abscess of the Neck (West London Hospital. Mr. Wainright).—A young man, with a history of syphilis, had, upon admission, been suffering for six weeks with pain and swelling of the neck. A large fluctuating tumor was found under the trapezius muscle, and one on the left side of the pharynx. The first abscess was opened, with only partial and temporary relief. The pharyngial abscess developed rapidly, causing suffocation. This was incised, and about two ounces of fetid pus evacuated. In nine days the man was able to take solid food. Perfect restoration followed.

Spina Bifida Cured by an Operation (Adelaide Hospital. J. R. Barton, F. R. C. S. I.).—An infant, two months old, was admitted with a small lumbar tumor. Since birth this had increased rapidly in size. The surface was occupied by a sloughing ulceration, the surrounding tissues being purple and congested. An elliptical piece was cut out of the center of the tumor, thus removing the sloughing portion. The flaps were drawn together and secured with sutures. An iodoform dressing was applied. In ten days the wound had healed, and the child was dismissed cured, the place occupied by the spinal tumor being flat and natural. The child died of convulsions a short time after leaving the hospital.

Gastrotomy for the Relief of Epithelioma of the Pharynx (Cancer Hospital, Brompton. C. Stonham).—CASE I. A man, thirty-seven years of age, was admitted, with epithelioma of the right half of the tongue, floor of the mouth, tonsils, fauces, pharynx and epiglottis. The excessive pain so interfered with deglutition, as to call for immediate treatment to prevent inanition. The stomach was opened at the pyloric orifice, and food introduced through the clamped tube. Pain in the epithelioma became greatly reduced, and the man lived in comparative comfort for six months, when he died from exhaustion. CASE II. A woman, aged forty-seven, was admitted with swelling of the cervical and sub-maxillary glands, and extensive ulceration of the left half of the tongue, fauces and tonsils. The passage from the mouth was so contracted as to allow only fluids to be swallowed. Gastrotomy was performed. The liver, being enlarged, presented at the abdominal wound. Before the operation was completed, it became necessary to perform tracheotomy to relieve alarming dyspnœa. The operation was followed by immediate relief from pain, but the patient died in about one week, from exhaustion attendant upon the epitheliomatous ulceration.

Excision of the Elbow Joint with Suture of the Olecranon to the End of the Ulna (British General Hospital. Mr. C. F. Pickering).—A strumous girl presented, with disease of the elbow. Excision was performed, but only partially succeeded in arresting the progress of the disease. The joint was again laid bare, and the olecranon process with the attached triceps separated and turned up. The diseased structures were then thoroughly removed, and the olecranon united by strong iron to the sawn surface of the ulna, the object being to improve the extension of the joint. These expectations were realized.

Excision of the Rectum for Scirrhous (Royal United Hospital, Bath. Mr. H. W. Freeman).—A male, forty-seven years of age, was admitted, with a well-developed scirrhous that commenced one inch above the sphincter and extended ten inches and three quarters in the long axis of the gut, entirely encircling the bowel. The growth was movable and could be defined with the index finger in the rectum. Mr. Freeman, after passing a catheter into the bladder, which was then retained as a guide, carried a sharp-pointed bistoury above the upper posterior margin of the growth, and cut backwards and downwards until the tip of the coccyx was reached, thus making the triangular incision of Demonvilliers. With a pair of Gardiner's straight probe-pointed scissors, the skin was divided all around the sphincter, except for an inch towards the pubes, when, with the aid of the finger, the bowel was separated from the levator ani, and deep fascia. Where the rectum lay in contact with the prostate, an inch was found free from disease; this was not removed. The growth was drawn down and cut off with the scissors. The bleeding was very slight, but was controlled with ligatures and torsion when necessary. The bowel was not brought down to the anus but left where it was amputated. Carbolized water was injected, and sponges soaked in Friar's balsam plugged into the wound; between these an eight-inch gum elastic vaginal tube was retained. This was removed on the eighteenth day. The intestine in healing, seemed to be drawn towards the external orifice, which contracted rapidly. At the end of four months the wound had healed, and his "condition was satisfactory."

Herniotomy for Left-Inguinal Hernia (Ward's Island Hospital. H. I. Ostrom, M. D.).—A laborer, fifty-three years old, was admitted with a complete, reduceable, left-inguinal hernia that had existed for three years. No cause was known for its appearance. Five months before entering Ward's Island Hospital, he was operated upon by the Hetonian Method at Charity Hospital, but without success. Dr. Ostrom cut down upon the sac, and after reducing the hernia, passed four carbolized silk ligatures through the pillars of the ring in such a manner as to include the hernial sac, which was not opened, the omentum not being attached to it. The wound was closed with catgut, a horse-hair drainage tube introduced, and a dressing of bichloride cotton and iodoform applied. The highest temperature reached was 101.2-5° on the fourth day. No symptoms of

peritonitis appeared. Three months after the operation, a very slight protrusion was observed during an attack of coughing. A truss was adjusted, after which the gut remained within the abdomen.

Three Cases of Brain Surgery (National Hospital for Paralyzed and Epileptics. Victor Horsley, B. S., F. R. S.).—CASE I. The patient, when a child, received a comminuted fracture on the left side of the vertex with loss of brain substance. This healed. At fifteen he began to have fits, which increased in frequency and severity, until at the time of admission he had 3,000 in a fortnight. The patient was distinctly hemiplegic. The bone above the old opening was raised. The dura mater, the arachnoid and skin were found to form a homogeneous mass of fibrous tissue that was highly vascular. The scar, and one-half a centimeter of surrounding brain substance was excised to the depth of two centimeters. The wound was closed without drainage. Paralysis and loss of tactile sensibility followed for a short time, but in two months these had disappeared, The fits did not return. CASE II. The fits in this patient began with clonic spasmodic opposition of the thumb and left forefinger, the wrist, elbow and shoulder were then fixed clonically. Loss of consciousness followed. The right side became affected in the same order. The left leg frequently remained paralyzed after an attack. Drs. Beevor and Horsley found by experiments "that the movement of opposition of the thumb and finger can be elicited by minimal stimulate of the ascending frontal and parietal convolutions at the line of junction of their lower and middle thirds." Dr. Hughling Jackson concluded, therefore, that the patient was suffering from a lesion at the situation indicated. Upon raising the dura mater, a large tumor came into view. The parts appearing diseased, and the center of the "thumb-area," were removed by excision. Numerous arteries required to be ligated. Five-sixths of the wound healed by first intention in a week. The day following the operation there was partial paralysis of the left side. At different times there was slight hemianæsthesia. These conditions improved, excepting the power of grasping with the left hand. A month after the operation there had been no return of the fits. CASE III. The patient, when a child, received a kick from a horse upon the vertex. His aura was abdominal. There was, in addition to severe abdominal pain, tightness of the throat and spasmodic cough. The head turned to the right, and the right arm was jerkily protruded. There was loss of consciousness. From the symptoms, it was believed that an irritative lesion was situated in the posterior third of the superior convolution, just under the depression. Upon raising the skull, it was found that the inner table had been splintered, the pieces of which were projecting downwards. A cavity filled with fluid and loose connective tissue was found beneath the dura mater. This was cleaned and the fragments of bone removed. The wound healed in four days. Paresis developed, but finally disappeared.

Acute Myxœdema Following Thyrœdectomy (Richmond Hospital. Sir Wm. Gull).—A woman, eighteen years old, was admitted, with both lobes of the thyroid gland extensively enlarged. The left lobe was removed after the lines laid down by Kocher. The hemorrhage was so alarming, as to render removal of the right lobe at that time unsafe. The wound healed promptly. Four months after the first operation the right lobe was amputated. The hemorrhage was more profuse than before. A convulsive seizure, "resembling epilepsy," followed. There then appeared some puffy swelling of the eyelids. Pain in the arms and legs became troublesome. The pain increased, the convulsions returned with greater severity, the intellect became more impaired, and the patient died with very marked symptoms of myxœdema, forty days after the second operation.

Penetrating Wound of the Neck (St. George's Hospital. Mr. Pick).—A porter, aged forty years, cut his throat with suicidal intent. On admission, a wound four inches in length was found to extend from the left side over the carotid sheath to the right side through the thyro-hyoid membrane, terminating close to the right carotid vessels. The incision passed through the epiglottis, the larger part of which remained attached to the base of the tongue. The upper part of the pharynx was completely separated from the lower. There was only slight hemorrhage. Upon bringing the skin wound together there was such severe dyspnœa as to render laryngotomy necessary. A strong silk suture was passed through each side of the upper border of the thyroid cartilage below and above the tissues surrounding the hyoid bone. By drawing them together the larynx was raised and held in position. The skin wound was united with silver wire. The patient was fed through the catheter. Later, as he showed a disposition to bite the catheter, a tube was passed through the nose, and alimentation carried on by that channel. On the twelfth day the silk ligature came away. The power of deglutition returned. It was found necessary to discontinue the use of the laryngial tube gradually, for when first removed severe dyspnœa obliged its reintroduction. A perfect cure followed; only slight huskiness of the voice remained.

Two Cases of Amputation of the Tongue by Sedillot's Method (London Hospital. Mr. Walter Rivington).—CASE I. A printer, aged sixty, was admitted to the hospital with an irregular ulcer on the left side of the tongue, involving the floor of the mouth. The surrounding hardness extended beneath the mucous membrane as far as the middle of the tongue. The incision extended from the middle of the lip to the hyoid bone. The jaw bone was slightly cleared, drilled with two sets of holes in which were passed silver sutures, sawn through vertically and then turned out. The tongue was cleared to its base, around which a wire-rope écraseur was applied. The division of the tongue occupied twenty minutes. A ligature was passed through the stump, the wires in the bone twisted, and the soft part secured with sutures. There was little hemorrhage. The wound was powdered with iodoform, and sponged half-hourly with an "antiseptic solution." Six months after the operation the jaw was quite firm. A small lump had then appeared on the left side of the neck. CASE II. A cab-driver, sixty-one years old, was admitted to the hospital with an ulceration that involved the entire left side of the tongue from tip to base. The base of the ulcer was indurated, the edges nodular and everted. Left sub-maxillary gland enlarged. The operation was the same as in Case I., but the dissection extended further back, as the growth reached as far as the anterior pillar of the fauces. The hemorrhage was quite profuse. The dressing consisted of iodoform, and sponging with Condy's fluid. Recovery was slow, and when he left the hospital [Time not given.—H. I. O.] the union between the two halves of the jaw was only fibrous.

Gleet.—Pinus canadensis is said to be a specific in gleet. Its action is prompt and permanent.

RETROSPECT OF DISEASES OF THE THROAT AND NOSE.

BY T. M. S.

Acute Tonsillitis in a Subject with Tertiary Syphilis of the Pharynx (Mackenzie, *Lancet*).—E. O'D——, a married woman, aged forty-four, applied at the throat department of St. Thomas' Hospital, complaining of pain in her throat and difficulty of swallowing, which had come on a few days previously. She also suffered from general malaise. It was with difficulty she could open her mouth sufficiently to allow even an imperfect view of the fauces. The appearance then revealed was somewhat extraordinary. The whole of the left and the greater part of the right side of the isthmus faucium were occupied by a swelling, which so displaced the surrounding parts that it was with difficulty they could be made out. The swelling on the left was continuous with what looked like the left anterior pillar, and above with the soft palate. The root of the tongue was pushed down on the left side by the swelling. On the right side a small opening remained for the passage of food and air, but the posterior wall of the pharynx could not be seen. At the upper part of the swelling, and pushed over to the right of the middle line, was a small œdematous body, identified by its situation as the uvula. It consisted of a round mass about the size of a pea, suspended by a short thread-like pedicle from the upper part of the swelling. The swelling did not fluctuate, and was not very sensitive to touch. No enlargement of the glands was to be detected in the neck. While from the symptoms one had expected to find on examination the appearances of an ordinary tonsillitis, what was seen was very different. The swelling, whatever it was, seemed to be one not confined to the tonsil, but involving also the soft palate and probably the posterior wall of the pharynx; the appearance, in fact, was that of a malignant growth or an infiltrating gummatous deposit.

The history of the patient was, that she had suffered from sore throat off and on for twenty-five years. She had been married nineteen years, and had had five children and two miscarriages. The children were said to be healthy. It appeared that she had applied at the throat department five months before, but had only come once. On reference to the former notes of the case, it was found that the appearance at that time had been almost precisely the same. Dr. Semon then had left the diagnosis *in suspenso*, and had put down "acute tonsillitis? malignant disease? syhilis?" As to what had been the condition in the interval we were left completely in the dark. We had only the patient's word for it that she had been comparatively well in the meantime. I may add that there were no signs of choroiditis on ophthalmoscopic examination. The diagnosis was left once more doubtful.

The patient was ordered to take ten grains of iodide of potassium, along with a saline aperient, thrice a day, and two grains of guaiacum, in the form of a lozenge, every two hours. She was strictly enjoined to return in a week. She did return, and happily the mystery was solved. The swelling had greatly subsided, and a good view could be obtained. It was at once seen that the case was one of syphilitic pharyngeal stenosis, which had been complicated with an acute tonsillitis. The soft palate had formed adhesions to the posterior wall of the pharynx everywhere, except a little to the right of the median line, where there was a small opening leading to the naso-pharynx and admitting the passage of a small probe. The swelling evidently was seated in the left tonsil, which, in consequence of the adhesions, was so abnormally situated as to appear to spring from the posterior wall of the pharynx, as well as to be continuous with the left anterior pillar of the fauces. The remains of the uvula presented the same appearance as on the previous attendance, except that the œdema had subsided. The character of the attack, its rapid course, and its tendency to recur left no doubt that it had been acute tonsillitis. After a few weeks the patient ceased attendance. Twenty-five years before she had had what was probably secondary syphilis, having been in hospital at Tralee with a general eruption over the whole body, and having then been treated with medicine which made the gums sore.

Clergyman's Sore Throat (Whipham, *Lancet*).—Those who are especially liable to the affection are the clergy, singers, hawkers or costermongers—persons, in short, who make undue use of their voice under more or less adverse circumstances. It seems, however, scarcely fair to compare the case of the clergyman, who suffers so much from this complaint, with that of persons who vociferate in the open air. A better comparison would be instituted between the clergy and the Bar, another profession in which great and prolonged vocal efforts are frequently required, and whose members are not, as a rule, sufferers as the clergy are. In regard to the prevailing atmospheric conditions in the two cases, if it be conceded that a cold, damp, badly ventilated church might be an efficient cause of the malady in the one case, it cannot be contended that the stuffy and impure air of a court of justice would be likely to confer immunity in the other. Probably the reverse would obtain, for it is by no means uncommon for a person spending the evening in an unventilated theater to become quite hoarse towards the conclusion of the play. The next to be considered are the positions in addressing their audiences assumed by the speakers; the one speaking from an elevation downwards, the other from below upwards. In order to ascertain what happens when the clergyman or the barrister is addressing his audience, it is only necessary that any one should read aloud from a book any passage in a clear and distinct tone, holding his head erect, as the barrister does, with his chin perhaps slightly elevated; now, without increasing or diminishing his efforts at distinct articulation, let him allow his head to fall gradually forwards, as the clergyman does, so that his chin shall nearly rest on his sternum, and the change in the voice will be marked. If, however, muffled words were the only outcome of reading in the latter position, the result might not be an important one. But the serious effect of it is that the friction of the air passing through the relaxed faucial aperture is very greatly increased, and this increase of friction tells especially on the fauces and the pharynx, against which the soft palate and pillars of the fauces are pressed. Thus, hyperæmia is established in the parts which are affected by this excessive friction; and temporary hyperæmia, if frequently encouraged, speedily becomes chronic congestion. Two typical cases are related, where marked relief followed the attempt to perform the services with the head held in the natural position for phonating.

Experimental Studies Upon the Function of the Recurrent Nerve.—Dr. Donaldson has taken up the experiments of Hooper, who demonstrated that during anæsthesia the constrictors of the throat lost their contractile

power, and that if the recurrents were excited during sleep then dilatation followed. In five experiments the animals being deeply anæsthetized, Dr. Donaldson has always observed constriction of the glottic orifice when exciting the recurrents. In another case the animal being under the influence of an anæsthetic, abduction of the vocal cords was produced by the weak current, and constriction by a strong current. Finally it was observed that a weak current always produced dilatation of the glottis, while a strong current always produced constriction. From these experiments he concludes that the constrictors do not lose their action during anæsthetic sleep, and that abduction of the vocal cords are not always present during that state.

Laryngeal Cancer (Ariza, *Annal. des Mal. de l' Oreille*).—The author having had considerable experience in this affection says: The lesion always commences by a papilla, a slight tumefaction limited to a single point in the larynx, and it seems to be a part of the tissues in which it is found; it is dark red in color, with a mamillated surface; increases by degrees, extending into the laryngeal cavity in an oblique direction, and with a diffusion greater than that which we observe in laryngeal hypertrophies. By contact with a sound we notice a sensation of special hardness. In the presence of these signs we can affirm cancer of the larynx. The microscope will show the variety of cancer. The epithelioma spreads more in a superficial way over the tissues, while sarcoma extends from the tumor itself, and with a greater tendency to round agglomerations. The surface of the epithelioma is unequal and granular; that of the sarcoma is smooth and level. The dark red color of the epithelioma is interspersed in places by paler shadings, while the color is equally diffused over the sarcoma. The invasion of the ganglions in sarcoma renders them soft and pseudo-fluctuating, while those of epithelioma are hard and compact. Extirpation is the means advocated by the author, since the growths are not curable by medicinal treatment, and are not often seen in the earlier stages, or are not recognized.

Benign Hypertrophic Laryngitis (Ariza, *Annal. des. Mal. de l' Oreille*).—The first case was one of super-glottic plastic laryngitis, necessitating tracheotomy. The second case a benign subglottic hypertrophic laryngitis. The author draws the following conclusions: 1. Simple hypertrophic laryngitis may be, in exceptional cases, of severe form.

2. Its objective symptoms are: uniform tumefaction of the mucous membrane; general coloration; absence of nodules, tubercles or excrescences; perfect bilateral symmetry of the morbid process; no secretion or simply mucus; absence of infarcts; a greater tendency to chronicity than the other hypertrophies.

3. By the microscopic signs alone it is possible to establish a diagnosis irrespective of general symptoms or incidents.

4. Laryngeal hypertrophy, when, of long standing, is not curable by local or internal treatment; it will require surgical interference. From the second case he deduces the following:

1. There exists a type of hypertrophic laryngitis, here recognized, even if with difficulty separated from other common types.

2. The rarity of this form ought to be very great, for its description is not to be found among the classic authors.

3. The laryngoscopic appearances presented would lead us to think of a want of conformation of the vocal cords, or a simple exaggeration of their length, rather than a true pathological lesion.

4. Error is possible since the hypertrophy forms a part with the true vocal cords, and is not distinguishable.

Diseases of the Teeth Indicative of Nasal Disease (Ziem, *Med. Chron.*).—Diseases of the teeth are often indicative of abnormal conditions of the nasal cavities and their sinuses, more especially of the superior maxillary sinus. Such results may exist as reflexes, swelling of the cavernous textures of the turbinated bodies, suppuration in the nasal passages or maxillary sinus, and lastly, in the various conditions produced by hypertrophy and growth of the teeth. Stoppage of one or both nasal passages has often its origin in carious teeth, generally in the upper, but sometimes also in the lower, jaw. By diseases of the teeth or their periosteum, irritation of the filaments of the spheno palatine ganglion may be occasioned, leading to hyperæmia of the mucous membrane, of the soft palate and nose, or of the gums, lips and cheeks, besides changes in the nasal secretion and temperature. The author mentions two cases in which periodical attacks of redness of the skin of the nose, with stoppage of the nasal passage of one side, was cured by the extraction of a carious tooth. The affection of the teeth is not necessarily accompanied with pain. If the caries is extensive, extraction is recommended; if circumscribed, careful filling. The author also cites instances where the reverse occurs, diseases of the nose causing pain in the teeth.

Adenoid Growths in the Pharynx Accompanied by Unusual Reflex Symptoms.—Allen (*Rev. Mens. de Laryn.*) reports the case of a boy, age five years, weak, without appetite, and with impaired digestion. On attempting to depress the tongue for the purpose of examining the pharynx, the patient manifested a marked degree of irritability. The nares were occluded with mucus, which was also collected in patches on the walls of the pharynx. Respiration, which, during the day, was tolerably easy, became much embarrassed during the night. While sleeping, after three to four inspirations, respirations ceased, and the child, compelled to open the mouth, made violent efforts to breathe. It then awoke and took a deep inspiration. When it again slept, the same phenomena were repeated through the night. Sometimes the above conditions were accompanied by vomiting. During an attack of whooping cough, these symptoms became very much aggravated, and were attended with irregular action of the heart. The existence of adenoid vegetations in the pharynx, attended by unusual reflex symptoms, was the diagnosis. He was anæsthetized, and an attempt made to remove the growths by means of the fingers, but this was found to be impracticable, owing to the interference with respiration. An effort was next made to seize the growths by means of an instrument passed through the nasal fossa, but symptoms of depression supervening, this also had to be discontinued, The pharynx was afterwards cauterized with a hot iron. During the following five weeks, in spite of the applications of iodine and glycerine, no amelioration was produced in the inspiratory troubles at night. The patient was again put under the influence of ether, and the pharyngeal cavity completely cleared of growths, and lest the tonsils might be the cause of the disturbed respiration, they also were partially excised. Still no relief ensued. A third attempt was made to discover the cause, and the nasal fossa was ascertained to be entirely free on either side. A more careful examination revealed

the fact that during sleep the tongue was greatly retracted. Instructions were given that the child should be so placed during sleep that the face should be downwards, and with this at once all irregularity of breathing ceased.

On the Proportion of Reflex Neurotic Affections in Diseases of the Nose and Throat (*Med. Chron.*).—Schmiegelow, in considering the relative frequency with which diseases of the nose and throat are attended by reflex neuroses, divides the latter into the usual three groups, namely, motor, sensory and vasomotor. Among forty cases of nasal polypi, nine of the patients had bronchial asthma; of these, eight were cured by the removal of the growths, and one relieved only. Out of fifty-one cases of nasal catarrh, five suffered with asthma, which in every instance disappeared with the cure of the catarrh. Out of a hundred patients suffering from chronic pharyngitis, six had asthma or oppressed breathing, which disappeared as soon as the catarrh was cured, and the granulations in the pharynx destroyed. Like Frankel, the author noticed during the asthmatic attacks, that the expectorated mucus contained the special organisms of Curschman. Cough occurred in seven out of seventy instances of chronic catarrh of the pharynx, and in five out of forty cases of nasal polypi. Sneezing constituted a characteristic symptom in six cases of chronic rhinitis. In one case the laryngeal spasm (inspiratory suffocation) disappeared with the cure of the inflammatory affection of the pharynx. Also a case of aphonia in which the voice was restored by the destruction of the granulations in the lateral pharyngeal vault. An œdematous condition of the cheek was produced in one case after cauterization of the pharynx. The author's experience leads him to believe that neuroses can originate from any part of the mucous membrane of the nose and throat, and that the diagnosis is only possible by a process of exclusion, The prognosis is the least satisfactory in cases of asthma. Treatment should be both local and general.

Oxygenated Water in Chronic Bronchitis.—Mackenzie (*Rev. Mens. de Laryn.*) recognizes the internal use of oxygenated water in the above-mentioned condition. The remedy was employed in those cases which had resisted all other modes of treatment. From 8 to 16 grams of a four per cent. solution were used from four to six times daily for two or three weeks. In a great number of cases this remedy is said to have arrested the secretion.

The Adenoid Tissue of the Pituitary Membrane.—Zuckerkandl discusses the adenoid tissue of the nasal mucous membrane, of which he considers it a normal, although exceedingly variable, constituent in man. The occurrence of a scanty infiltration of the mucous membrane with lymphoid cells is regular, but masses of adenoid tissue, either in the form of diffuse infiltration or follicles, are exceptional.

The adenoid tissue is found most abundantly in the respiratory division of the nose, and especially in its hinder part. In the olfactory region the connective tissue of the mucous membrane contains interspersed lymphoid cells, but not follicles. Adenoid tissue, both diffuse and forming follicles, is well developed in the pituitary membrane of the dog, cat, sheep, pig, stag and hare, in all of which follicles are more numerous and constant than in man.—(*Jour. Med. Sci.*)

Abscess in the Antrum of Highmore.—Mikulicz advocates perforation of the antral wall from the inferior nasal sinus, using for this purpose a special instrument. He has employed this method with success once, and has repeatedly proved its practicability on the dead subject. He argues that the usually adopted sites for perforation of the antrum are inconvenient and the aperture difficult to main tain open, and that his method possesses distinct advantages in these respects. Ziem holds that many cases of persistent ozœna and nasal blenorrhœa are kept up by disease of the mucous membrane lining the antrum. The symptoms of this complication are very vague, and in no less than twenty-nine cases out of a total of thirty-seven in which he perforated the anterior wall he found pus in the cavity. Its frequent irrigation led in eight of these to a complete cure, and in thirteen to improvement.

Intubation of the Larynx.—Dr. O'Dwyer (*Med. Record*) reports a case of chronic stenosis of the larynx treated by intubation. The patient, a woman forty years of age, had contracted syphilis twelve years before she came under his observation. For two years the voice had been husky, and she had suffered from dyspnœa and stridor on slight exertion, with at times "severe suffocative attacks." The glottis was narrowed by cicatricial contraction, the result of ulceration, and by a band on the left side which nearly closed the opening. There was also probably, subglottic stricture. Tracheotomy had been advised. The tube was first introduced on December 5th, and was worn fifty-six hours, the patient experiencing much relief. From this time the tube was worn at intervals, and on January 3d, no tube having been worn for eleven days, the cicatricial membrane had almost entirely disappeared. The dyspnœa had been entirely relieved. After six weeks there was a slight return, and the tube was again worn at intervals. At the time of the report (June) the patient was wearing the tube one night only in every two weeks, and the period of intermission was being lengthened.

The Dose in the Treatment of Infants.—(Dr. E. M. Hale in the *Hom. Jour. of Obsterics.*)—In our school it has been considered by many, if not all, that in the treatment of infants the dose must be a minimum one. Many years ago I did not dare to give belladonna to an infant under the sixth dilution. It has been demonstrated, however, that the infant constitution will tolerate larger quantities of certain narcotics than an adult. Among these are belladonna, chloral and chloroform.

Meigs and Smith recommend that five drops of belladonna be given to children of six months, and fifteen drops to those of twelve months. I have cured many cases where belladonna was indicated by one drop repeated hourly; where the attenuations fail to have any effect we may as well throw away our fears of appreciable doses of belladonna in cases of children. If some have observed apparent aggravations it has been due to ignorance of the natural history of disease. This bugbear of medicinal aggravations has greatly retarded the therapeutics of our school. The physician who is always fearing and watching for medicinal aggravations will always find them. He will leave off the administration of the really indicated drug, or go higher in the scale of dilutions and allow his patient to succumb, when the persistent use of such drugs in appreciable doses might have saved life. I have given twenty grains of chloral to a child with eclampsia with no other than the best effects; clinical experience is worth all the theorizing in the world.

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EGBERT GUERNSEY, M.D. ALFRED K. HILLS, M.D.

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THE AMBER SOUL.

THE GREEKS looked upon amber with superstitious reverence, and, from the fact that when it was rubbed it seemed to live and to exert an attraction upon other things distant from it, they speculated upon an amber life and an amber soul as its essence. The first clue to that subtle force which pervades all nature and is connected in some form or other with the development and existence of all material life came from the amber which the Greeks in their mythology pictured as the tears of the Heliades, changed by the all powerful Jove into translucent amber, as they mourned the death of their brother Phæthon, son of the Sun. The knowledge obtained in these golden days of ancient history, which subsequent research has shown extended to the therapeutic effects of electrical currents and the polarity of electricity and magnetism, like nearly all other scientific knowledge, was only preserved in books and manuscripts, in which often only hints were given, in monasteries closely guarded by monks during the long period of the Dark Ages, to flash out with a brighter light and form the nucleus of a broader, deeper knowledge when in the later centuries thought became unshackled and the race through the slow tuition of ages had emerged to a higher plane.

The amber soul of the ancients is recognized in modern science as that magnetic electric force which pervades all nature, and which, in some way or other, is at work in almost every process of life. The greatest triumphs in future science must be in studying the action and utilizing the power of this subtle agent, this all-powerful elixir of life, which links every part of our solar system to each other, every part necessary to the harmony and perfection of the whole.

In some unknown manner solar energy acts and reacts upon the electrical and magnetic condition of the earth, by turns stimulating and relaxing its activity in correspondence with its own rythmical alternations. Such correspondence is part of the vital union which subsists between the various members of our system. No one of them can exist alone, or is independent of the other. They form together, as it were, a living and co-operative whole, the same life flowing through all and influencing all.

The aurora borealis, those polar lights which in cold winter nights when the air is clear and dry fill the northern heavens, at one moment flashing towards the zenith, rising and falling in great crimson waves, seeming at times like banners in the sky, and again as if in the white light all warmth of nature had been absorbed, leaving only its ghost to hover over the earth, are as beacons kindled in response to the subtle messengers of the sun, telling that the earth is no dead or cast off member of its system, but still thrills in harmony with and moves obediently to the great life sustaining luminary.

A magnet surrounded by a rotating cylinder of some conducting substance produces a distribution of its electrical equilibrium, giving rise, if wires be sufficiently connected, to a current the direction of which depends upon that of the rotation. The rotating earth may be regarded as a great magnet wrapped in the conductive strata of its crust, while the upper layers of the atmosphere complete the circuit. Rarefied air transmits electricity with ease, although dense dry air is a non-conductor. One effect of the forces thus brought into play is that positive electricity is constantly expelled from the earth's surface into the higher atmosphere, the earth itself remaining negatively charged. Another is that the expelled positive electricity travels without ceasing from the equator towards the poles. This accumulation of opposite electricities on the earth and in

its atmosphere cannot go on indefinitely. It must be attended by some process of neutralization. As thunder storms can only occur under favoring meteorological conditions, the recomposition of the positive fluids of the air with the negative fluid of the earth by these violent outbursts can only be partial and to a limited extent. The greater part of this expelled electricity flows silently poleward, constantly reinforced by fresh supplies gathered *en route*, and waiting an opportunity for relief from increasing pressure. Over a ring-shaped space around either pole, the electricity of the upper air flows to the earth, and it is these concentrating currents, made visible through peculiar conditions of the atmosphere, which light up the polar heavens, with their wierd light flashing towards the zenith and sweeping through the sky like armed hosts of mighty armies or great waves of fire. The more closely the nature of electricity in its varied forms is studied and its phenomena comprehended, the nearer we get to the secrets of life, of power, of harmony, and the annihilation of time and space. The great problems which will arise one after another in the progress of events will be solved, if solved at all, in the comprehending and utilizing the mysterious powers of the all prevailing agent, including the nature and character of earth and atmospheric currents in the production of atmospheric changes, in the repressing or destroying germs of disease, in the creating or destruction of those conditions which give rise to the pestilence or health.

The study of earth currents and the cause of sudden outbursts of electric energy, influencing atmospheric conditions as well as vegetable life, are now subjects of special investigation by Edison and others who have already done so much to utilize this agent to the benefit of man. By closely watching nature, one after another of its problems are solved and turned to account. The storage of electricity if it could be accomplished by human means, as it is in nature, would revolutionize mechanic force, and this is so nearly accomplished that we can already see the dawn of the day when this force shall be to a certain extent the great motor power of the world, lighting our houses and running the machinery of our cars, our steamboats and the looms and spindles which give us their fabrics. There is, however, no such thing as storage of electricity. We cannot pour the electric fluid into something and keep it there, but what is really done is the changing of the electric energy from the active to the potential condition—from the state in which it may be doing work to the state in which it is not doing work, but is capable of so doing.

This sudden development of strong earth currents which may affect vegetation and animal life is admirably illustrated in the storage battery of Mr. Willard E. Chase, who has demonstrated that heat can be directly converted into electricity in the galvanic cell. He places in the cell an electrode of tin and one of carbon and a liquid which at ordinary temperatures will not attack either electrode, but as soon as the liquid is warmed chlorine is set free from the liquid and attacks the tin; then the current starts, and continues until all the tin is converted into chloride. Now, if the cell is allowed to cool, the chloride releases the tin and returns to the liquid, and so the cell regains its original state. The chlorine, in fact, is a chemical pendulum, swinging from liquid to tin and from tin to liquid as often as the heat is applied and removed. With the earth a great magnet, and its crust full of storage batteries ready to pour out their energy and their power at the command of the sun, and the chemical action which a variety of causes may set in motion, what unchecked and uncontrolled might be elements of discord and death, under the guiding hand of science will sweep away discords as it has already annihilated time and space, and realize in the transmission of thought and of power from continent to continent and from island to island, the truth of the Rosicrucian philosophy and the dream of the Theosophist. If, as science has shown, the whole solar system is bound together by electric influences, each part a necessity to the whole, we may possibly find in the old astrology, as was found in the amber soul, the germ of a great truth which will revolutionize thought and place it upon a higher plane.

DIETETICS IN DISEASE.—"Of the necessity of some systematic teaching of dietetics in a course of medical education," says Dr. Milner Fothergill,

"no one can entertain a doubt. It is surely as desirable that a medical man be taught how to feed a patient acutely ill as how to prescribe for him. If it be a pyrexia, surely it is as desirable to maintain the strength, and call as little as possible upon the body-reserves, as it is to keep down the body temperature by antipyretics to prevent exhaustion; both matters must receive attention. Every sick person is more or less a dyspeptic, and dyspepsia requires appropriate and suitable food. Many dyspeptics can alone perform their daily toil by a watchful attention to their food and food-requirements."

THE REMOVAL OF THE HEALTHY OVARIES IN MENTAL AND NERVOUS DISEASES.

A SYMPOSIUM of more than common interest was published in the October number of *The American Journal of the Medical Sciences*. The subject, "Castration in Mental and Nervous Diseases," is at present very generally discussed by surgeons; and the specialists who enter into this debate—Sir Spencer Wells, Dr. Alfred Hegar and Robert Battey, M. D.—command attention by reason of the position to which their work entitles them, and deserve to be heard with respect, if not always with approval. Sir Spencer Wells, one of the pioneers of abdominal surgery, approaches the subject with characteristic culture, and treats it with dignity,—with what we may call a deep sense of the religious bearing of the operation. But Sir Spencer has reached the zenith of his work, and come to his resting-place. Younger men, more able to grasp present necessities, less influenced by past successes, must now take up the work that he so grandly began, fortunate in being able to profit by his boldness and skill. He places the operation within such narrow limits, as practically to exclude it from among necessary, or even justifiable, procedures. Dr. Hegar is less fortunate in conveying a clear impression of the position he occupies. He treats the subject practically, at no time allowing personal feeling to sway his judgment. His paper is a valuable contribution to the literature of female castration, but really adds little beyond a clear setting forth of the present status of the operation in surgical practice, the advantages and disadvantages that may be expected to follow it. Emphasis, however, is laid upon what we regard as a very important consideration, "that there exists, also, a group of symptoms in the nerves of the genitals and in their vicinity, without there being the least anatomical alteration of these organs," and that "the proof that a neuroses, or a group of nervous symptoms has its cause in an affection of the genital organs, cannot always be easily given; * * * for the most part, however, the phenomena are partially or almost exclusively of a sympathetic or reflex nature." Here, we believe, lies the gist of the whole matter. That conditions of the ovaries may exist capable of giving rise to nervous diseases, and that, in some instances, removal of these glands would be beneficial to the moral and physical health of women, seems to us to require no further proof than is found in every surgeon's experience; but that such instances are extremely rare cannot be doubted. If by removing the reproductive glands a woman could always be unsexed, and the sources of irritation at the same time taken away, castration would be more frequently justifiable than at present. But neither of these results can with certainty be predicted. The nervous irritation that seems to be connected with the sexual organs, is probably frequently dependent upon some spinal neuroses, in which the ovaries play but a secondary part. The operation itself presents nothing formidable; but we must consider, even though no risk is run, whether there is likely to be any gain. When the ovary is the seat and cause of nervous disorders that cannot through other methods be reached, by all means let us remove the organ, but can we always tell this? Mistakes in this direction have undoubtedly led perfectly conscientious surgeons to castrate when the cause of the nervous disease resided in some other organ; and hence the operation has been denounced, and its projectors most unjustly maligned. Now, we cannot conceive of a perfectly healthy organ, one that performs its functions, and one whose anatomical struction presents no variation from the normal, giving rise to a sufficiently serious and persistent group of nervous symptoms to call for or even suggest

the removal of that organ; and therefore it would seem as if an ovary that we were justified in amputating would present, to the skillful diagnostition, some indication of its pathological state, something by which its abnormal function could be detected. If the ovary is only a battle-ground upon which the nervous forces meet to make war upon each other, to remove the battle-ground would only change the scene of action, the forces themselves, whether they reside in the brain or the spinal nerves, must be subdued, and until they are subdued, no good can accrue from castration. This question, castration proper, removal of the healthy ovaries—and we take the ground that the *healthy* ovary should never be removed for causes not directly connected with its functional activity, or where the health of the individual does not demand the premature bringing on of the menopause—is of a very different nature from the operation when performed to shut off the nourishment from a pathological uterus. Here the glands may be healthy, but to save life, or possibly a more disastrous mutilation, we are perfectly justified in taking advantage of a physiological law, and stopping a function, whose very physiology is opposed to health. But when the ovary is healthy, and therefore not itself the cause of nervous diseases, we cannot avoid the conclusion that its amputation is based upon no scientific principle, and will not result in a cure of the reflex mental, or nervous symptoms. Dr. Robert Battey closes this symposium with a vigorous definition of his position. Dr. Battey's name, has, unfortunately, been connected with castration. But the blame rests partly with himself. He says: "The misconception upon this point still existing, my own ignorance of both the histology and pathology of the ovaries is largely responsible in that, during the early history of the operation, I removed ovaries which I erroneously supposed to be healthy, and gave to the operation the unfortunate and now obsolete name of 'normal ovariotomy.'" His paper concludes with several interesting cases of removal of the ovaries and tubes, but in all these the amputated organs presented unmistakable evidences of disease, and therefore cannot be considered as illustrative of castration, or regarded as proving either for or against the operation of "castration in mental and nervous diseases."

ETIOLOGY OF BERIBERI.

DR. HORACE M. LANE, of Sao Paulo, Brazil, contributes to the *Boston Medical and Surgical Journal* for September 30, 1885, an interesting article entitled "Beriberi in Brazil," which embodies the latest scientific conclusions with regard to this remarkable affection. The geographical limits of the disease are now enlarged to include various points of India, the Malabar Coast, part of Ceylon, Java, a limited area in Africa, China and the Coast of Bengal, Borneo, Cuba, Paraguay and Brazil. It is a singular fact that the disease has not yet been found in the West Indies, except at Cardenas, in Cuba, nor on the west coast of Africa, nor north coast of South America, nor in any part of Central America or Mexico, or the United States. We have no assurance, however, that it may not yet invade our gulf coast, where there is a considerable strip of country within the limits ascribed to it, and where conditions apparently favorable to its development exist.

It is generally supposed that the number of deaths from beriberi is greater than that of any other disease on the Brazilian coast. Dr. Lane is inclined to think that this is an exaggeration. The percentage of deaths among those attacked is very much smaller than it was fifteen years ago, and it would be safe to say does not exceed thirty to forty per cent.

What can we say of the cause of the disease? We cannot resort to that convenient term, malaria or marshmiasm—the great asylum of all obscure diseases—as it has none of the chief characteristics of malaria, no chill, no fever, and, when epidemic, almost no recoveries. One is thoroughly impressed with the belief that it depends upon some specific poison generated outside of the body. This belief finds corroboration in the fact that Dr. J. B. Lacerda, Director of the Government Laboratory of Experimental Physiology in Rio, and the discoverer of the application of permanganate of potash to snake-bites, has actually found in the spinal marrow and blood of per-

sons dying of beriberi, and isolated, a germ which is in some manner constantly related to the disease.

Dr. Lacerda has published a very interesting work describing the micro-germ, and telling how he discovered it. He also finds the identical germ in certain kinds of rice. This receives strong support from observers in India, where rice is one of the articles of diet *prohibited* to beriberic patients. This talented observer has, during the past year, pushed his studies into a still more interesting field, and has found the microbe of beriberi to be identical with that which produces the horse-pest (*peste de cadeiras*) in the great island of Marajo. This disease of horses, in its clinical features, so closely resembles beriberi in the human subject, that Dr. Lacerda's discovery causes no surprise. It also receives strong support from the fact that, wherever the pest exists, there, also, beriberi is found—to wit, in Bolivia, on the Solimoes, Mattogrosso, Madras, etc.

Lacerda, Dr. Lane says, follows Pasteur's methods, and has isolated this germ, which belongs to the great group of *ascomycites*, and cultivated it, and demonstrated its effects upon various animals, and its casual relation to beriberi, in a most convincing manner. If we accept this, the pathology is comparatively simple.

Concerning the treatment: In India, Maxwell gave phosphorus in substance in 1, 2, 3-grain doses with success. (Lacerda explains the predilection of the micro-germ for the nervous tissue by the fact that this tissue abounds in phosphorus, and he observed that the microphyte multiplied most rapidly in a culture acidulated with phosphoric acid.) A great variety of medicines are given, but change of surroundings is the only thing that cures, and in the acute pernicious type this fails.

THINKING AND WORKING. — The *Popular Science News* tells us that in our present system of education—now happily passing away for a better one—we want one man to be always thinking and another to be always working; and we call the one a gentleman and the other an operative; whereas the workman ought often to be thinking and the thinker often to be working, and both should be gentlemen in the best sense. As it is, we make both ungentle, the one envying, the other despising, the other; and the mass of society is made up of morbid unhealthy thinkers and miserable workers. It is only by labor that thought can be made happy; and the professions should be liberal, and there should be less pride felt in peculiarity of employment, and more in the excellence of achievement.

WATER AS A THERAPEUTIC AGENT.

DR. BRUNTON says in the *Practitioner* that water is, perhaps, the most powerful diuretic we possess, although fewer experiments have been made with it upon animals than with the others. The diuretic action of water drunk by a healthy man is very marked, and it appears impossible to explain its elimination by a mere increase in blood-pressure, whether general or local. It has the power of increasing tissue-change, and thus multiplying the products of tissue-waste which result from it, but it removes these waste products as fast as they are formed, and thus, by giving rise to increased appetite, provides fresh nutriment for the tissues, and thus acts as a true tonic. In persons who are accustomed to take too little water the products of tissue-waste may be formed faster than they are removed, and thus accumulating may give rise to disease. If water be freely drunk by such persons the products of waste will be removed and health maintained or restored. Many gouty persons are accustomed to take little or no water, except in the form of a small cup of tea or coffee daily, besides what they get in the form of wine or beer. In such people a large tumbler of water drunk every morning, and especially with the addition of some nitrate or carbonate of potassium, will prevent a gouty paroxysm. Still more numerous, possibly, is the class of people who arise in the morning feeling weak and languid—more tired, indeed, than when they went to bed. Many such people are well fed, they sleep soundly, and it seems almost impossible to believe that the fatigue which they feel in the morning can result from imperfect nutrition, more especially as one finds that after moving about the languor appears in a great measure to pass off. It seems

that this languor must depend upon imperfect removal of the waste products from the body, as we know that the secretion of urine in healthy persons is generally much less during the night than during the day. Such persons should drink a tumbler of water before going to bed, in order to aid the secretion of urine and of the waste products during the night.

Dr. A. B. Cook, of Louisville, says in *Gaillard's Medical Journal:* Hot water is a great antiseptic remedy. It soothes irritation, allays and prevents inflammation, stimulates the capillaries to activity and arrests inflammatory effusions; it acts as an astringent and prevents the absorption of septic poison or essence of decomposed fluids, and it destroys germinal vitality. It is highly probable that hot water will in itself accomplish much that is claimed for the antiseptics largely diluted with water.

THE VALUE OF LATIN AND GREEK TO THE MEDICAL STUDENT.

REGENT WILLIAM H. WATSON, in his very able address before the University Convocation, reprinted in the TIMES for September of last year, enters the following special plea for the study of Latin and Greek as a preparation for that of medicine:

"The study of the classics, while on the one hand eminently conducive to the habit of disciplined thought, involves from its very commencement to a close the nicest analysis, the most delicate perception of different shades of meaning and the most constant collocation of words. The student, in order to select those words which most exactly express the meaning of the author, must weigh the evidence on either side, and must balance shades of thought which, to those unaccustomed to these pursuits, seem to be almost imperceptible. By such processes as these the mind acquires not only the ability to recognize the slightest varieties in thought and speech, but the power, which to the physician is worth more than any other, since upon it depends all his subsequent procedure in the treatment of disease—the facility, akin to a quick and unerring instinct, of differentiating similar cases of disease; in a word, the power of diagnosis. The judgment thus tends to become like the scale, capable of weighing the smallest particles and of detecting their slightest variations. From this power comes the power of prognosis. * * * In my judgment no preliminary study will so powerfully contribute to develop those qualities of mind upon which depend the power of rapid and accurate diagnosis as the study of languages, and especially the languages of Greece and Rome."

If this position be correct; if the graduate of a literary college, other things being equal, makes a better diagnostician than his competitor whose preliminary training stopped short at the common school or the academy, it would be sufficient to justify us in following the example of some European Governments and demanding that every medical student shall be a Bachelor of Arts. But we do not believe that the "fetich," as President Eliot so happily termed it, of a classical education, bestows any such gift upon its worshippers. The men who at Oxford University take the highest honors, mainly, if not altogether, on account of their proficiency in the "literæ humaniores," do not, as a rule, attain to corresponding eminence in the learned professions; and, on the other hand, many of our foremost physicians and surgeons never saw the inside of a college until they entered upon their professional pupilage. Is it conceivable that the late Professor Gross, for example, would have been appreciably greater than he was, as author, lecturer or practitioner, if he had spent six years of his youth in thumbing lexicons and delving among Greek roots?

Moreover, the mental endowment—that peculiar equipoise between the faculties of observation and of judgment—which belongs to the finished diagnostician, differs widely, in our opinion, from that of the successful philologist—as widely as the characteristics of a Porson or a Bentley differ from those of a Sydenham or a Rush.

Upon this point, therefore, we are compelled to dissent from Dr. Watson. All the knowledge of Latin and Greek which we can regard as of any practical advantage to the average medical student is so much as would enable him to enter the freshman class in any of our first-rate institutions.

The general question, "Shall our young men study the classics?" has been so fully and forcibly discussed in an address by Dr. J. Donald

Wilson, Professor of Chemistry in the Atlanta Medical College, that we cannot better conclude our argument than by abstracting a portion of his remarks :*

"Can a boy get literary culture out of something which he does not at all appreciate *as literature?* Something which he reads simply as a difficult task? Something in which he generally sees no beauty, and from which he derives no pleasure? In the actual practical working of the system not five in a hundred ever get sufficient grip on either of these languages to have command of their literature. Can a boy appreciate the rhythm and movement of a Greek poem when he worries out the meaning of the lines with the most excruciating difficulty? Can you get culture from a language when you cannot direct your thought to the ideas, but must have your attention continually distracted by painful search for the meaning of words? * * * Our young men study Latin and Greek for a long number of years, and yet at graduation are unable, *in any true sense*, to read either one. Does all this pretended culture come to us from a language which we cannot read? Is it right to spend time and money in learning anything as imperfectly as most of our boys learn Latin and Greek? Is it not an actual training in doing things by halves and in a smattering way? Does it not conduce to slovenly mental habits? And then what is it they are studying so faultily? They spend this valuable time in getting the merest smattering of the literature of nations long ago dead, and in studying events which have not now any vital or controlling interest in human affairs, and they are studying even this in the most imperfect and superficial way. * * * I believe an occasional scholar like Lord Macaulay does gain a really valuable knowledge of the classics, but shall we found our educational system on what the rare exception can do? * * * Again, we are told that the study of the classics is a valuable aid in acquiring a good command of English. The study of English literature will show that we have just as good writing in any or all directions from those ignorant of the classics as from those learned in them. * * * It is by the constant use and study of our own language that we become adepts in handling it. * * * They tell us that the Greeks had the most perfect language that the world has yet seen. How was it produced? The Greeks never studied any language but their own. Terse and vigorous English is the result, more than anything else, of close and vigorous thinking, and this is not produced by studying any language, but by studying something else entirely.

"When the friends of the classic system, in their conflict with the modern idea, have from time to time been hard pushed, they have shifted their ground, and so we find the gymnastic idea advanced. They tell us a boy enters college for the training of his mental powers, just as an athlete enters a gymnasium for the training of his physical powers, and it is as absurd to complain that the boy does not carry all of his Greek and Latin away from college as it would be for the athlete to complain that he could not carry away the dumb bells and Indian clubs from the gymnasium. He goes there, not so much for the intrinsic value of what he learns, as for development and discipline.

"Now, my objection to this is that the majority of mankind cannot afford to learn that which is not valuable in itself simply for the discipline. Admitting that discipline is the all-important thing, the modern idea is, Can we not get the discipline by the study of something which we can use in our daily life, and thus have two results instead of one? And to this end we wish to give the sciences—the close and analytical study of nature—an integral and predominating place in early education. * * * Suppose the classics are excellent as discipline, what kind of discipline is it? If it be anything it must be literary discipline. How many of us are going to spend our lives in literature? Most of us are dealing with things and facts, not words. 'To study expression before subjects of thought have been accumulated is to cultivate the habit of talking fluently without having anything to say.' * * * A child who studies languages almost exclusively forms a habit of admitting exceptions to the rules of grammar, and is apt to think there are exceptions to other laws, physical and moral. It does not have impressed upon its mind the necessity, the inevitableness of the laws under which we do all our work in the world.

"It is not enough that one should study nature through one of the sciences later in life. The study of natural phenomena should begin when the mind is in the bud. Our system of education should especially exercise the powers of observation, comparison, analysis, judgment and reasoning when the mind is in its plastic stage, so that a logical habit of thought may be engendered which will cling to one through life.

* * * * *

"In conclusion, I would say to young men * * 'Do not fall into slovenly habits of any kind.'

* Vide *Atlanta Medical and Surgical Journal*, January, 1885.

And if those now in the beginning of their career as students should ask me for a motto to write over their doors I would give them these words of Confucius: 'What we know, to know that we know it; what we do not know, to know that we do not know it; this is knowledge.'"

EXCELLENT RESULTS IN THE TREATMENT OF THE INSANE.

THE report of the Superintendent of the State Homœopathic Asylum for the Insane, at Middletown, for 1886, shows a marked improvement in cases treated over any preceding year, the death rate being 2 99-100, and the recovery rate on the whole number discharged 50 95-100. The superintendent attributes these unprecedented results:

1st.—To a careful and persistent application of homœopathic remedies.

2d.—To bed treatment; that is, hospital treatment for the insane; and,

3d.—To a general improvement in the dietary, and especially in the abundant use of prepared foods, such as are made from beef, mutton, grapes, milk, oils and the cereals. Some of these foods are peptonized, and in other ways prepared for easy digestion and full assimilation.

APPLES AND BREAD.

WHEN THE temperance reformation swept over New England some forty years ago, very many of the farmers let their apple orchards die out lest they might be tempted to make their apples into cider, and their cider, what they did not want to drink, into cider brandy. The result was, in some portions of the country, apples ceased to be what they had been considered before, an almost necessary article of daily food; and hardly yet, nothwithstanding the more enlightened judgment of the present age upon food and drink, take the rank as food they deserve. A raw mellow apple is digested in an hour and a half, and a baked apple is one of the best desserts which can be placed upon the table—cheap, nutricious and easily digested, while a plentiful supply at breakfast with coarse bread and butter, and without meat or flesh of any kind, has an admirable effect on the general system, especially in removing constipation and correcting acidity and other troubles of indigestion. Many people cannot use fresh bread on account of certain qualities it has, rendering it to some stomachs indigestible, and so they doom themselves to stale bread. But stale bread, by reheating in a covered dish, renews its youth, becoming moist and palatable, as when just baked. This is owing to the fact that in stale bread the water is withdrawn from the starch into the gluten; but, subjected to heat in a covered dish, the water is driven out into the starch, so that the bread becomes moist, and yet with no return of those qualities which made it when just baked unhealthy to some stomachs. As bread enters into the food to a greater or less extent of almost every one, the simple scientific fact of its so easily becoming palatable, is one which every patient suffering from indigestion will be glad to know.

CONSTANT LIFE AND DEATH.—This life is but a series of partial deaths; we are continually throwing off diseased portions of our own structure. While living we carry in ourselves a part of our own corpse, but prevent it from injuring us by elimination of its poisonous element and its destruction by oxygen. These toxic substances or "ptomaines" are alkaloids, found in both dead and living bodies. They are absolutely poisonous, and produce self-infection unless eliminated or destroyed; just as urea, an alkali, is constantly formed in our bodies, and as constantly eliminated during health, or its retention acts as as a poison in disease.

VOICE ALTERATIONS PRODUCED BY INHALATIONS.—Dr. Sandras, at the Soc. Med. du Pantheon (*Brit. M. J.*, Aug. 7), read a paper on some experiments he had made in regard to the employment of inhalations for the production of modifications in the voice. The agents used were tar-water, alcohol, ether and various essential oils. The notes produced by the same larynx were made high or low at will, while harshness and sweetness could be made to alternate. A curious feature of the experiment is the accuracy with which certain well-defined effects are said to be obtained. Thus a certain number of inhala-

tions of one kind will diminish the compass by so many notes, while another will confer an additional eight or ten; some even limit the range to five or six notes. By a careful selection of the agents accurately graduated results may be obtained at will.

BIBLIOGRAPHICAL.

EUTOCIA. EASY FAVORABLE CHILD BEARING. A book for all women. Illustrated. By Mrs. E. G. Cook, M. D. Chicago: Arcade Publishing Co. 1886.

Mrs. Dr. Cook, by combining anatomical, physiological and hygienic information with that obtained by a wide range of careful study and long experience in the treatment of her own sex, has prepared a book of great practical value. The closing chapters on home treatment are such as only the skilful and painstaking physician could prepare. We have no doubt the work will have, as it deserves, a large sale.

THERAPEUTIC METHODS. An outline of principles observed in the art of healing. By Jabez P. Dake, A. M., M. D. Otis Clapp & Son, Boston and Providence. 1886.

The high rank which the author has attained in the new school as a writer, teacher and practical physician will attract more than usual attention to his thoughtful and scholarly work. In part 1st a brief statement of the leading therapeutic doctrines, up to and including the time of Hahnemann, is followed by a clear presentation of the admitted prerequisites to the physician, to fit him for professional work, among which he names a minute knowledge of anatomy, physiology, pathology, etiology, exciting causes and pathogenesy, aided by all possible devices to obtain a correct understanding of conditions, such as chemical reagents, the microscope, &c. Even an exact knowledge of anatomy, physiology, pathology and symptomatology, says the author, "can avail little to the practitioner who is unacquainted with the properties and powers of the agencies to be used in the treatment of the sick. Imagination will not serve in place of real knowledge, and he who draws most upon it in the selection of curative means will make the most miserable failure in practice. The knowledge required is not simply or chiefly of drugs, but quite as much of the every-day influences bearing upon man, sustaining him in health or making him sick, as their properties vary, such as the atmosphere he breathes, the food he eats, the fluid he drinks, and the influence of his occupation, residence and habits; water at various temperatures, electricity, physical exercise—all these must be understood in their varied relation to human health."

Part II is devoted to a discussion of therapeutics, which include physiological and pathogenic therapeutics. Under the latter head is discussed antipathic, allopathic, isopathic and homœopathic therapeutics. The peculiar doctrines of each are presented clearly and with the utmost fairness. The thoroughly scientific position taken by the author in the discussion of these principles is best shown by his own words: "Medicine must shake off the idea of an orthodoxy and heterodoxy, and of sects and parties, and be willing to learn or unlearn and to accept truth on its own account wherever and whenever found. Not so credulous as to accept what is not proven, nor so skeptical as to refuse what cannot be denied—conservative enough to hold fast what is good, and progressive enough to get away from what is worthless—medical men should fearlessly follow logical methods wherever they lead. But even logical methods avail little toward the building up of a science of therapeutics, where the facts generalized are *not facts*. It is better to have our medical doctrines written on a blackboard with chalk, so as to be readily modified to suit the revelations of increasing light, than to have them engraved on tables of stone, never to be changed."

Part III is devoted to the discussion of *similia* and includes the preparation of drugs and the grouping and analysis of symptoms. He says:

"1. The homœopathic law relates to no agents intended to affect the organism chemically.

"2. It relates to none applied for mechanical effect simply.

"3. It relates to none required in the development or support of the organism in health.

"4. It relates to none employed directly to remove or destroy the parasites which infest or prey upon the human body.

"It includes in its armentarum those agents which affect the organism as to health in ways not governed by the principles of chemistry, mechanics, or hygiene, but those capable of producing ailments similar to those found in the sick. In the employment of any agents belonging to this class the homœopathic principle is supreme, not as a dogma, but as a law of nature. It is exclusive only in the sense that any law is exclusive in its own domain; and it is universal inasmuch as it applies to each and every member of a class. In other classes or outside of its own peculiar sphere it does not apply and has no control and no worth whatever."

Dr. Dake deserves the thanks of the profession for his fair, clear and logical presentation and discussion of the theories and principles of the schools, not in the spirit of a partisan, but of a seeker after truth.

HANDBOOK OF PRACTICAL MEDICINES. By Dr. Herman Eichhorst. Vol. III, Diseases of the nerves, muscles, and skin. One hundred and fifty-sev[illegible] wood engravings. New York, William Wood & C[illegible] 1886.

The third volume of this able work constitutes the October issue of Wood's Library of Standard Medical Authors. The larger portion of the volume is devoted to disease of the nervous system and includes a variety of subjects not usually discussed in medical books, but the understanding of which is of the utmost importance to the careful diagnostician. The writer shows in the discussion of every subject the careful methods of the trained pathologist and the skilled observer and clinical teacher.

OUTLINES OF THE PATHOLOGY AND TREATMENT OF SYPHILIS AND ALLIED VENEREAL DISEASES. By Hermann Von Zeissl, M. D., Late Professor at the Imperial-Royal University of Vienna. Second Edition. Revised by Maximilian Von Zeissl, M. D., Privat-Docent for Diseases of the Skin and Syphilis at the Imperial-Royal University of Vienna. Authorized Edition, translated, with Notes, by H. Raphael, M. D., attending Physician for Diseases of Genito-Urinary Organs and Syphilis, Bellevue Hospital Out Patient Department; member New York County Medical So-

ciety, etc. New York, D. Appleton & Co. 1886. pp. 402, Octavo.

A treatise by one who has devoted his entire life to the subject of which it treats cannot fail to be useful, and when it is founded upon an experience covering over thirty thousand clinical cases, the work cannot fail to be practical. The text is concisely and graphically stated, and bears evidence of scientific thoroughness, and great prominence is given to the pathology of the affections.

The translator has done his part well, by giving us good English, and in the addition of important notes and prescriptions which bring the subject to date. On the whole the work must be pronounced as most excellent, and worthy a large circulation.

THE NOVEMBER *Century* marks a new era in the history of that magazine, in beginning the publication of "The Life of Lincoln," by his private secretaries, John G. Nicolay and Colonel John Hay. Two prefaces, one editorial and the other by the writers, give ample account of the work, and call attention to the exceptional opportunities which these gentlemen have had to prepare what is certain to be the fullest and most authoritative work on the subject. Its authors were, in a sense, the chosen biographers of Lincoln, by whose aid they were reinforced in the collection of material during the war. From an historical point of view the value of the work—largely resting on documentary evidence not attainable by other writers—must be ranked high. In fact, the inner history of the war waits upon this work.

THE ARCHIVES OF GYNÆCOLOGY, OBSTETRICS AND PÆDIATRICS OF NEW YORK has met with such warm encouragement, the publishers have decided to issue monthly, commencing with January. Address 141 Broadway.

OBITUARY.

WE ARE pained to hear of the recent death of Dr. J. P. Dake, Jr., at the residence of his father, Dr. J. P. Dake, of Nashville, Tenn., at the age of thirty years. Of high literary culture, of marked scientific ability and with an enthusiastic love for his profession, the higher walks of professional success were just opening to him when he was removed to a higher life. The family have the warmest sympathy of the profession in the early closing of the earth life of a brother so full of promise.

DR. C. T. LIEBOLD, one of the most distinguished oculists in New York, was found dead in his chair at his residence, 1271 Broadway, on the morning of November 30th. His age was 56 years, and the cause of his death apoplexy. Dr. Liebold was educated in Berlin, and was a pupil and assistant of the celebrated oculist Von Græfe. He served through the war as a surgeon in the Union Army. On returning to civil life he established himself in this city as an oculist and aurist, and soon, by his skill and devotion to his work, reached that foremost place in his profession which he maintained till his death. Dr. Liebold has been a frequent contributor to this journal, of which he was one of the founders.

To Prevent Buzzing in Ears Produced by Quinine.—The distressing ear symptoms produced by the administration of quinine or salicylate of sodium are counteracted by the addition of small doses of ergot to the mixture.

TRANSLATIONS, GLEANINGS, ETC.

Two New Tests for Sugar.—The two reactions about to be described (*Monatshefte Für Chimie*) are common to cane sugar, milk sugar, glucose, levulose and maltose, and to the carbo-hydrates and glucosides capable of yielding glucose by the action of sulphuric acid. They do not, however, produce any result with inosite, mannite or quercite.

1. From ½ to 2 C. CM. of the suspected liquid are treated with two drops of a 15 or 20 per cent, alcoholic solution of alpha-naphthol, and the mixture is shaken. A slight turbidity results from the precipitation of a little naphthol; sulphuric acid is then added in quantitity equal to or even double the volume of the fluid, and the whole is briskly shaken. In the presence of sugar a deep violet color is developed, and dilution with water throws down a violet-blue precipitate, soluble in alcohol and ether with a yellow color, or in caustic potash with a golden yellow color. In order that the reaction may occur as described, the test must be made exactly as stated.

This test will permit the detection of 0.00001 per cent. of sugar, and, with the exception of vanilline, anethole, methyl salicylate and a few similar substances, gives no reaction when sugar is not present. These substances, however, either produce the color with sulphuric acid alone, or the precipitate formed when the violet solution is diluted with water differs totally in character from that formed in saccharine liquids. The limit of sensibility in Fehling's test is 0.0008 per cent., and that of Trommer's test is 0.0025 per cent.

2. If, instead of the alpha-napththol in the preceding test, an alcoholic solution of thymol of similar concentration be employed, the remaining manipulations being the same as before, a deep red, varying from cinnabar to carmine is produced; dilution with water brings the color to carmine, and after a time there separates a flocculent precipitate which dissolves with a pale yellow color in alcohol, ether and caustic potash, but with a bright yellow in ammonia.

The delicacy of this reaction is about the same as of that with alpha-napththol.

After many experiments had shown the trustworthiness of the results given by these tests, it was interesting, on account of their exceeding delicacy, to apply them to the solution of the disputed question whether normal human urine does or does not contain sugar. The results of the first attempts were so decided that the urine examined appeared to be diabetic. The urine of a number of perfectly healthy individuals was therefore examined, but with precisely the same results. The tests were made with alcoholic solutions of alpha-napththol and thymol, exactly as has been described, and the extraordinary delicacy of the reactions can be better understood by the statement that normal urine diluted to from 100 to 300 times its volume with water still gives a recognizable reaction. When the urine is diluted to 400 times its volume the test shows no result.

In order that there might be no question as to sugar being the actual cause of the reaction, the following substances were examined, and gave negative results, with both alpha-naphthol and thymol: urea, creatine, xanthine, uric acid, allantoine, hippuric acid, succinic acid, phenol, pyrocatechin and indican.

These results fully confirm the opinion advanced by

Brücke, and supported by many other observers, that normal urine constantly contains sugar.

These tests may be applied in two different manners, in order to distinguish a normal from a diabetic urine:

1. A specimen of normal urine and of that to be tested are equally diluted with water to about 100 times their volume; the same quantity of each is then tested just as has been described; if the suspected urine give a deeper violet than the normal specimen it may be considered as diabetic.

2. The urine under examination is diluted with water to from 400 to 600 times its volume. Even in this enormous dilution diabetic urine will sharply respond to the reactions of the test described, while normal urine would give no result when diluted to 400 times its volume.

After carefully studying the various tests for sugar in urine, F. Penzolt came to the conclusion that the fermentation test is worthy of the greatest confidence in doubtful cases. All experiments, however, seem to show that the two new tests are decidedly more certain than the fermentation test They leave but one thing to desire—they do not enable a distinction to be made between glucose and levulose, and although the sugar found in urine will in nearly all casses be glucose, yet various instances have occurred in which levulose was detected also.

The Latency of Grave Symptoms in the Puerperal State.—Dr. W. O. Priestly, in a paper on the occasional latency and insidiousness of grave symptoms in connection with the puerperal state (*Brit. Med. Jour.*), concludes that,

1. In many cases going wrong it has been observed that the uterus was inordinately large, thus indicating a dilated cavity, in which clots or fluids, which ought to be discharged, are retained, and which may thus become the nidus for the possible development of diseased germs. Further, in an imperfectly contracted uterus the sinuses or large veins remain full of clot, or of fluid blood, which is more or less apart from the general systemic circulation, and is thus, like the backwater of a stream, stagnant and ready to become a source of peril. Clots should, therefore, always be carefully removed from the uterus, as they form for some time after delivery; and pressure with other means should be conjoined to promote full contraction.

2. The occurrence of a rigor at any part of the puerperal period should never be disregarded. It is nearly always the forerunner of some less or greater commotion in the system, although the mischief it portends may not be observed until the suspicion excited by its advent has well-nigh died out.

3. The presence of rheumatic or obscure pains in the joints or muscles, even if they be flitting or transient, should be taken as indicating a possible contamination of the blood current, and the case should be watched the more closely if the patient be depressed in spirits, or if she be prone to be apparently hysterical. If with these symptoms there be no evidences of deviation in any special organ the heart should especially be watched, with the view of ascertaining if there be any indications of deposits in the valves. The sudden appearance of a bruit with the heart sounds may be the precursor of embolism either in the pulmonary or in the general systemic circulation, The temperature should also be carefully recorded, as it is probable that in all cases of insidious puerperal disease the thermometer will indicate some rise of temperature.

4. It should be remembered that patients who are inert in temperament, and who lead inactive lives during pregnancy, are more prone to puerperal ailments than others of more active disposition, and thus require more careful supervision.

5. The treatment of suspected cases should consist of putting the patient in the best possible hygienic conditions, and improving vitality by the administration of quinine and a good but judicious diet.

6. As it is possible that all germs of disease are imported from without, and that those of a less virulent character only find an opportunity of developing themselves in the bodies of women whose vitality is below the normal standard, it may be possible in many cases to prevent disease altogether by improving the health of the patient, and by the proper use of antiseptic precautions both during and after delivery.

The Function of the Tonsils.—Dr. R. Hingstfox, in an interesting article on the functions of the tonsils, in the twentieth volume of the *Journal of Anatomy and Physiology*, expresses the opinion that these glands belong to the digestive and not the respiratory tract, and that their function is to reabsorb certain constituents of the saliva in the intervals of meals which would otherwise be wasted. He thinks that the view of their having an absorbing function is further supported by the strong evidence of the power of the tonsils to absorb morbid poisons directly from the saliva.

Retraction of the Penis.—The following remarkable case is referred to in the *London Med. Record*, February 15, 1886:

A young man of thirty-three came to a local hospital in the Samara Government with a string encircling the retroglandular sulcus of the penis and firmly fastened to the thigh. When the string was untied the penis slowly retracted, and ultimately disappeared under the pubic arch, leaving only a naval-like depression.

Coaxing and threats were of no avail; the organ would not present itself to view again until traction was made upon the string. The condition had been discovered five days previously by the patient, who, having got up to micturate at night, was surprised and shocked at his inability to find any organ with which to perform the act, being well aware of its existence at bed-time. After long and patient manipulation, he succeeded in bringing it to view, and at once secured it with a strong string, not wishing to risk its permanent withdrawal. There was no perineal pain, and no cause could be assigned for the strange retraction. Ten-grain doses of bromide of potassium were given every three hours. The following day the penis remained unretracted for an hour. Six days later the retraction disappeared and did not return. Dr. Ivanoff, who reported the case, could find no similar one in literature.

The Cause of Gas Formation in the Stomach.—Professor Miller (*Deutsche Med. Wochenschrift*) has recently investigated the formation of gas in the stomach after the ingestion of food. He ascribes this formation to the action of certain forms of bacteria on the carbohydrates of the food. These organisms have the common property of withstanding for six or eight hours the acidity of the dog's stomach, which is 0.1 per cent. greater than that of man. If a culture of the organisms be mixed with the food of the

animals, diarrhœa ensues in twenty-four to thirty-six hours; and the same result Professor Miller experienced when he took some of the culture after a meal of potatoes and bread. The symptoms were relieved by a large dose of hydrochloric acid, but he found the bacteria in the feces for six days afterwards. In the other experiments which were performed, the organisms were added to a digestive mixture containing the food experimented upon and a large amount of saliva. The amount of gas formed was then roughly estimated by comparing the level of the food before and after digestion. It was found that, of ordinary food, bread and potatoes gave rise to the greatest quantity of gas, while meat, fish and some vegetables (for example, endive) gave rise to exceedingly little.

The Elixir of Life.—According to Dr. Burggræve, of the University of Ghent, the great panacea for all ills is common salt. According to his theory, salt is the great regulating agent. He estimates that the quantity of salt which every adult in ordinary health should consume daily is two-thirds of an ounce, and he goes the length of saying that if everybody would only take salt, centenarians would become about as common as new-born babes. What has become of all the centenarians?

Mistakes in Prognosis.—In the discussion at the recent meeting of the British Medical Association at Brighton, on the duration of life with heart disease, Dr. Bristowe made some very excellent and apposite observations on this subject. "It is," he said, "quite early enough, in my opinion, for a man to know that he has heart disease when he begins to feel the effects of it;" and with this sententious remark most practitioners will agree. Incalculable harm has often been done by the abrupt announcement that a patient has cancer, or that another has heart disease; and the evil is aggravated by the fact that, as in all human affairs, the diagnosis may be wrong, or the prognosis may not be realized. Sir Andrew Clark told a very amusing but instructive anecdote of his having been called to see a gentleman suffering from bronchitis, who, fifty years before, had been precipitately superannuated on full salary, on the announcement by the medical officer to an insurance company that he was the victim of an incurable form of heart disease, and would probably not live more than six months.

Hydrophobia in Berlin.—While mad dogs seem to be very numerous in London and in some parts of America at present, not a case of rabies has been seen in Berlin for the last three years. Dogs are as numerous in Berlin as elsewhere, but they are all muzzled.

Delay in Tying the Cord.—Von Engel (*Ctrlbl. F. Gynäk.*, No. 46, 1886) writes in favor of delaying ligation of the umbilical cord, for the following reasons: 1. The placental circulation does not cease for some little time (even as long as a quarter of an hour) after the expulsion of the fœtus; if the cord is tied at once, the child is deprived of an appreciable amount of blood, which is retained within the placenta and cord. This is proved beyond question by weighing the infant before and after the cessation of the placental circulation. The average gain is ten grammes. 2. Contrary to the commonly received theory, the fœtal circulation is not favored by the first respiratory efforts, but is rather retarded. The contraction of the child's heart is the sole propelling force. 3. The arrest of the placental circulation is due to the contraction of the vessels of the cord and placenta, the arteries being the first to contract. 4. These two forces, the cardiac action and the vascular contraction, are directly opposed, the amount of blood supplied to the fœtus being proportioned to the preponderance of one force over the other. 5. Clinically, the mortality during the first ten days among infants whose cords were ligated immediately after delivery was 18 per cent., while after delayed ligation it was only 9.45 per cent.

Electrolysis in Extra-Uterine Pregnancy.—Dr. F. H. Martin, in his report on electrolysis in gynecology (*Jour. Am. Med. Asso.*, July 17 and 24, 1886) mentions as "the greatest achievement of electrolysis the certain saving of every woman afflicted by extra-uterine pregnancy, while all perished in former times. Successful cases have been reported by A. D. Rockwell, E. G. Landis, Nathan Bozeman, Garrigues, Reeve, Lusk, and others. The *modus operandi* is simple. Repeated applications, one metal pole in vagina or rectum, near and below the tumor, the positive sponge-electrode above the abdomen, will destroy and absorb the fœtus. It is of great importance to the obstetrician, nay, to every practitioner, to know that he has a certain remedy to save life in this troublesome anomaly of nature."

A Simple Test of Sugar.—The simplest test for diabetic urine is to place a little on a piece of bright tin, which is held over a spirit lamp until the urine is evaporated. If sugar be present the last portion of the urine will give the characteristic appearance and odor of burnt molasses.

Headaches in Diagnosis.—Dr. C. C. Benson submits the following series of observations in the *Medical World*:

1. When pain is located between the ears at the occiput, below the lambdoidal suture. The gastro-digestive apparatus, the automatic centers of life and the sexual organs will be the seats of disturbance.

2. When pain is located in the region of the parietal bone, from the coronal to the lambdoidal suture, and from the squamous suture to the superior outline of the parietal eminence. The duodenum and small intestines will be the seat of disturbance.

3. When pain is located in the forehead, from the coronal suture to the superciliary ridge below, and within the temporal ridges on either side. The large intestines will be the seat of disturbance.

4. When pain is located below the superciliary ridges, including upper eyelids, to the external angular processes on either side. The nasal passages and buccal cavity will be the seats of disturbance.

5. When pain is located in the temporal fossa, from the squamous suture to the zygoma below, and from the temporal ridge to the mastoid process. The brain and its meninges will be the seats of disburbance.

6. When pain is located at the vertex, from the coronal suture and two inches posterior to it in the median line, and two inches on either side of that extent. In the female the uterus, and in the male the bladder, will be the seat of disturbance.

Fatal Effect Ascribed to Collodion in Small-Pox.—Comby recently described before the Société de Chirurgie, of Paris, the case of a woman suffering from small-pox, whose face was covered with collodion to avoid cicatrization. The eruption was at first retarded, but soon diffuse suppuration took place under the collodion, and after a few days of great suffering and high fever the patient died. The fatal ending of the case was attributed to the application of the collodion.

Antiseptic Paper.—Dr. Bedoin, of the Military Hospital of Vincennes, makes light, cheap and effective applications for wounds by using, instead of gauze, unglazed paper (filtering or cigarette paper) first sterilized in a drying cupboard at 110° C.; then rendered antiseptic by immersion in a solution of carbolic or boric acid, sublimate, &c. This can be used in layers or plugs, and is covered with thin sheets of gutta-percha.

Gonorrhœa.—The editor of the *Medical World* used in an obstinate case the following ointment, applied in small quantities to the glans penis, beneath the prepuce, on each side of the frænum:

℞—Morphine.....5 grains
Lanolin (wool fat).....½ drachm

He then combined muriate of cocaine with some of the above mixture, so that about one-fourth of a grain of cocaine would be used at each application. In a few hours the penis was found to be perfectly numb, discharge ceased and all symptoms relieved. Continuation of this treatment soon effected a cure. Of course the part should be cleansed before each application. Be sure to have the mixture strong enough to produce decided effect.

Late Child-Bearing.—Dr. A. O. Banes writes in the *Medical Brief* that there is an aged and respectable couple residing in St. Joseph, Mo., the husband seventy-one and the wife sixty-five. This enterprising woman gave birth to a fine, healthy boy, much to the surprise of their kind neighbors and to their own, as she thought an ovarian tumor was developing.

Growth of the Heart.—The human heart doubles in size from birth to the second year: from the second year to the seventh year, it doubles again; from the seventh to the fifteenth year it remains stationary, making no increase; from the fifteenth to the twentieth year it increases about one-third of its volume; subsequently, its growth is more gradual and slow.

Thus, from the seventh year to the fifteenth, the growth of the heart is temporarily arrested, pending the development of the rest of the body; but as soon as puberty is arrived at, its growth commences anew.

Preservation of Cocaine.—(*Louisville Med. News.*)—As Cocaine is now so extensively employed in medical as well as surgical practice, it is worth knowing that this alkaloid, which is readily decomposed, may be preserved for an indefinite time by the addition to it of a small quantity of corrosive sublimate, as in the following formula, proposed by Dr. Darier: Hydrochlorate of cocaine, 60 centimetres; corrosive sublimate, 2 milligrams; distilled water, 10 grams. The whole to be boiled, and after allowing it to cool it is to be filtered and preserved in a glass-stoppered bottle. This solution has the advantage of not only retaining the anæsthetic properties of the cocaine, but the mixture itself is rendered aseptic. With this solution, which is not irritating, one drop alone suffices to produce temporary anæsthesia of the cornea. If it is desired to produce a more profound anæsthesia and more durable, it will be sufficient to instil five or six different times, and at intervals of three minutes, one or two drops. In fifteen to twenty minutes, the iris itself becomes insensible and the pupil dilated.

Treatment of Tetanus.—Professor Verneuil gives the following method of treating tetanus: He places the patient in a large gutter splint, and fastens him firmly, so as to obtain complete immobilization. He envelopes the patient in a thick covering of cotton-wool, to maintain a constant elevated temperature and slight diaphoresis, and he maintains an uninterrupted sleep for about three weeks by the continuous administration of hydrate of chloral.

Amyl-Nitrite as an Antidote for Opium.—*L'Union Medicale* reports the case of a person who took two ounces of laudanum, and showed every symptom of opium poisoning—coma, small pulse, feeble and infrequent respiration (six to the minute), coldness and cyanosis. Belladonna proved useless, while inhalation of nitrite of amyl immediately improved and ultimately restored the patient.

Diet in Albuminuria.—After passing in review the principal theories which have been given regarding the pathogenesis of albuminuria, Nollet offers the following conclusions:

1. Milk diet has as yet given the best results in the treatment of albuminuria.
2. This method is not applicable to all forms, and if too prolonged may produce serious inconveniences for the patient.
3. The albuminuric should avoid large meals, eating frequently, but little at a time.
4. Individual susceptibility must determine the sorts of animal food least injurious to the patient.
5. Fish appears to favor the passage of albumen into the urine.

"Don'ts for the Sick Room."—Don't light a sick room at night by means of a jet of gas burning low; nothing impoverishes the air sooner. Use sperm candles or tapers which burn in sperm oil.

Don't allow offensive matters to remain; in cases of emergency where these cannot be at once removed wring a heavy cloth, for instance, like Turkish towelling, out of cold water, use it as a cover, placing over this ordinary paper. Such means prevent the escape of odor or infection.

Don't forget to have a few beans of coffee handy, for this serves as a deodorizer if burnt on coals or paper. Bits of charcoal placed around are useful in absorbing gases and other impurities.

Don't have the temperature of a sick room much over 60 degrees; 70 degrees are allowable, but not advisable.

Don't permit currents of air to blow upon the patient. An open fireplace is an excellent means of ventilation. The current may be tested by burning a piece of paper in front.

Don't give the patient a full glass of water to drink from,

unless he is allowed all he desires. If he can drain the glass he will be satisfied; so regulate the quantity before handing it to him.

Don't neglect during the day to attend to necessaries for the night, that the rest of the patient and the family may not be disturbed.

Don't ask a convalescent if he would like this or that to eat or drink, but prepare the delicacies and present them in a tempting way.

Don't throw coal upon the fire; place it in brown paper bags and lay them on the fire, thus avoiding the noise which is shocking to the sick and sensitive.

Don't jar the bed by leaning or sitting upon it. This is unpleasant to one ill and nervous.

Don't let stale flowers remain in a sick chamber.

Don't be unmindful of yourself if you are in the responsible position of nurse. To do faithful work you must have proper food and stated hours of rest.

Don't appear anxious however great your anxiety.

Don't forget that kindness and tenderness are needful to successful nursing. Human nature longs to be soothed and comforted on all occasions when it is out of tune.

Napthaline in Cystitis.—In all cases where the urine was cloudy, purulent, alkaline and full of microbes, the napthaline has been used with marked benefit, also in the many cases of old urinary trouble. The drug is best given in capsules.

Intracranial Hemorrhage.—The following conclusions are drawn by Dr. H. F. Formad from his record and classification of one hundred and forty-three consecutive fatal cases observed in medico-legal practice and in private autopsies in the city of Philadelphia:

1. Hemorrhage exclusively above the pia mater and above the dura mater—that is, on the outside of the brain—is always due to traumatism or to sunstroke, provided a cerebral source for hemorrhage is excluded and the cerebral vessels and membranes were not diseased.

2. Hemorrhage in the floor of the fourth ventricle is always traumatic, provided there are no blood clots in the lateral ventricles or any part of the cerebral substance.

3. Hemorrhage exclusively below the pia mater or in any part of the brain substance or in the ventricles, except the fourth, is always idiopathic—that is, is due to disease.

4. There must be a diseased condition of the cerebral vessels or substance in order to ascribe a hemorrhage to disease. There must be traumatism, a fall or violence in order to account for a hemorrhage in a normal brain.

5. The blood clot in concussion of the brain is not found at the point of application of violence, but always somewhere about the opposite side of the brain, and always within the arachnoid—that is, between pia and dura mater.

6. The blood clot in fracture of the skull is always found at the point of application of violence, immediately below, and always between the dura mater and the fractured part of the skull itself.

7. A blood clot formed within the cranial vault is more favorable to the patient if due to fractured skull than if due to a mere concussion.

8. Only clotted blood and infiltration of blood corpuscles into tissues indicate an ante-mortem hemorrhage. Liquid blood is due to post-mortem oozing, and only stains, and does not infiltrate tissues.

9. Severe bruises and cuts of the scalp may be seen in cases of idiopathic apoplexy where a sudden cerebral hemorrhage causes a person to fall.

10. In some cases it is impossible to decide by medical examination alone as to whether a head injury and the resulting hemorrhage is due to a fall or to violence.

11. External marks of violence may be invisible to the unaided eye in some cases of injury to the head or other parts, but are easily detected and distinguished from post-mortem spots by means of the microscope.

12. The bulk of an intracranial hemorrhage stands usually in an inverse proportion to that of the external scalp hemorrhage.

Transplantation of Tendon.—M. Monod relates a case in which the tendon of the medius was divided by a jagged wound. Finding it impossible to unite the two jagged ends without causing considerable contraction, he introduced a piece of the tendon of a dog. The result was very good, the functions of the fingers being for the most part re-established.

MISCELLANY.

—A young woman in Paris, having a medical education, has been appointed a medical inspector of girls in the Parisian schools. Her duties are to see that the girls are not overworked, and that they perform their tasks under the best sanitary conditions possible.

—The Philadelphia *Ledger* thinks that the regulation of the diet is the principal field for advance in the medical profession in the near future. It is evident even to the surface observer, that foods, habits, and other incidents of life being daily and continuous, must have much more influence on constitutional tendencies than medicine and treatment, which are occasional and varied. Perhaps the clues to the two opprobria of the profession, consumption and cancer, are to be conquered after all by means of food.

—The munificent bequest of $900,000 by the late Sir Erasmus Wilson to the Royal College of Surgeons of England as Residuary Legatee is by far the largest legacy the College ever received. The next largest was one of $20,000 from the same benefactor.

—A Texas Doctor gave the *Medical Bulletin* an account of the ease with which Doctors are made in that State. He took a six hours' ride with a Texan villager, who asked him a great many questions about the medicines used for certain diseases then prevailing in the locality. On the following week he had occasion to visit a neighboring village, where he found his recent companion with his shingle out as a full-fledged doctor. He had graduated in that six miles' ride.

—It is said that adding half a teaspoonful of dilute muriatic acid to a pint of water, mixing this with a quart of milk, and then boiling, will produce fine curds as in woman's milk, and will be of pleasant taste.

—The galvano-cauterization treatment of diphtheria bids fair to become a most important mode in the therapeutics of this dread affection. It is said to be painless, fever soon disappears, there are no secondary effects, and the operation is easily accomplished.

—Bernadotte, the founder of the reigning house of Sweden, would never allow himself to be bled. One day he suffered so much that his physician insisted, and the king,

after making the doctor swear that he would tell no one what he saw on his arm, pulled up his sleeve, and revealed, tattooed, a cap of liberty, with the device, "Death to monarchs."

—In June, 1799, one Maria Ruiz, of Lucena, in Andalusis, was successively delivered of sixteen boys, without any girls. Seven of them were living on the 16th of August following.

—A new explosive, under the figurative name of "panclastile," or "universal smasher," has lately been receiving attention in France. The explosive, which consists of an admixture of nitric peroxide with benzine, in the proportion of 18.6 to 81.4, is stated to be of unequalled force.

—The venerable Dr. Peabody, of Harvard, is noted for his benevolence. One warm day in summer he was coming into Boston from Cambridge. He had just left the horse-car and was hurriedly turning the sharp corner near the Revere House, when he came near colliding with an old gentleman. The elderly-looking individual stood with his hat off wiping the perspiration from his brow, but he held his hat in such a position as to give the appearance that he was begging. Dr. Peabody, seeing only the hat, dropped a quarter into it with his customary kind remark. Dr. Oliver Wendell Holmes, who was holding the hat, put the quarter into his pocket, solemnly thanked Dr. Peabody, and passed on.

—Dr. Schatz reports a case (*Centralb. fur Gynak.*) of a young woman from whom he removed the whole of the left ovary for a cystic tumor; he also removed part of the right ovary, which had undergone cystic degeneration. The patient menstruated regularly, subsequently married, and in May, 1886, was delivered of a daughter at full term.

—An incident from professional life is reported from Vienna, in which a tailor, on being told by his physician, whom he had called to consult as to a disease from which he was suffering, that recovery was impossible, forthwith shot the physician in two places and then fatally shot himself.

—The tenesmus of dysentery or diarrhœa, or the vesicle tenesmus of cystitis may be very much relieved by placing a pillow under the buttocks and making the patient lie upon his back, in such a manner that the parts are thus raised somewhat higher than the other portions of the body.

—At the recent International Homœopathic Congress Dr. Hansen, of Copenhagen, said that homœopathy was progressing more favorably in that city since the right to dispense medicines had been taken away from the physicians. The people did not believe that the pharmacist would sell them "nothing."

—Dr. Andries, in a letter to the *Mittheilungen*, says that the danger of a house being struck by lightning has increased from three to five fold in Germany within the last half-century. He attributes this increase to the impurities carried into the atmosphere from the increasing number of factory and other chimneys.

—The attitude of some men toward offlce is like that of the historical old maid toward matrimony. She had been in this vale of sorrows a long time, and was getting mighty weary of waiting and watching for a husband. She could not sew, or bake bread or clean up a house—at least nobody ever saw her doing anything of this sort but she was very eloquent, and one day she concluded to try her eloquence on the lord. She went down into the wilderness, and, kneeling under a tree, prayed long and fervently for a husband. While she was sending up a silver-tongued appeal to the Throne of Grace an owl overhead screeched out *who-who-oo!* Thinking her prayers were about being answered, she exclaimed joyously: "Anybody, good Lord! Anybody, so it's a man." "Anything, good people! Anything, so it's an office. If I can't be coroner give me the city hospital, and if I can't have that give me the lunatic asylum."

—The following are among the colleges whose diplomas will not be recognized by the Iowa State Board of Health: American Eclectic College, Cincinnati; College of Physicians and Surgeons, Buffalo, N. Y.; Eclectic Medical College, of Philadelphia; Hygeio-Therapeutic College, Bergen Heights, N. J.; Hygeio-Therapeutic College, New York City; Medical Department of the American University of Boston, Boston; St. Louis Eclectic Medical College, St. Louis; St. Louis Homeopathic Medical College, St. Louis; Medical Department of Drake University, Des Moines, Iowa; and King Eclectic Medical College, Des Moines, Iowa.

—Dr. Strong, chief of staff of the W. I. Hospital, reports 516 patients treated during the month of October, with a mortality of 3.10 per cent.; 3184 patients have been treated since January 1; mortality, 7.41 per cent.

—Mrs. Anna Wœrishoffer has presented the Academy of Medicine with $25,000 in memory of her late husband, Mr. Chas. F. Wœrishoffer.

—Rush Monument. An effort is being made to erect in Washington, a monument to the memory of Benjamin Rush, the distinguished physician and scientist, who was a member of the Continental Congress, signer of the Declaration of Independence and the first Surgeon-General of the Army of the Revolution. The monument will cost about $40,000, and the subscription is limited to one dollar each, which may be sent to the treasurer, Joseph M. Toner, M. D., Washington, D. C., or to A. M. Bell, M. D., N. Y. City.

—Some works in the national library of Pekin contain undeniable proof that Chinese medical men, at an early period, used anæsthetics during their operations. This practice is due to a cel-brated Chinese physician who lived at an epoch between the 220th and 230th years of the Christian era. They administered to their patients hachish, cannabis indica, which rendered them insensible.

—It is reported that another of M. Pasteur's patients has just died at Leste, near Bordeaux, after undergoing ten inoculations. The victim was a little boy named Cladicie, aged 3½ years, who was bitten by a mad dog on June 14 last.

—The popular and mildly-exhilarating beverage in the principal Parisian hotels and restaurants is now distilled water, strongly charged with pure oxygen, and this at the suggestion of Dujardin-Beaumetz.

—Valentine Mott, the pride of American surgery, visited Hahnemann, and this is how he speaks of him: "Hahnemann is one of the most accomplished and scientific physicians of the present age."

—The *Brit. Med. Jour.* tells of a scybalum so large, that in order to extract it, it was necessary to give the patient chloroform and apply Simpson's short forceps. The patient, a woman, suffered from d lusions, which appeared to be due directly to the intestinal accumulations.

—A gunshot wound of the heart is reported in the *Indian Medical Gazette*, where the patient lived forty-two hours after a bullet had pierced the seventh rib, left lung, left and right auricles, and right lung. Bryant Circular, No 3, War Department, Washington, cites a case in which the patient survived a wound of the right auricle for fifty hours.

—Phosphorus-necrosis of the jaw is becoming quite common in England, in consequence of the popular self-prescription of phosphorus as a brain renovator.

—Dr. A. De Verona has opened an office at 50 West 35th Street, New York City, where he will devote himself exclusively to his specialty of surgery. He can be seen daily from 2 to 3 p. m.

—An unusual surgical operation was performed at the New York Hospital recently by Dr. Robert F. Weir, who excised a portion of a woman's brain. The patient was about thirty-five years old. From the symptoms, cerebral tumor of some kind was diagnosticated. Dr. Weir made an incision in the scalp on the right side of the head and removed a piece of bone from the skull about as large as the larger end of a hen's egg. Upon the removal of the bone the subjacent part of the brain immediately protruded through the opening in the skull, indicating a high degree of intercranial pressure. Upon examination of the exposed part of the brain no tumor could be found. The cortex of the protruding brain, however, appeared to be darker-colored than is normal in brain tissue.

Failing to discover any tumor, and being unable to replace the portion of the brain which protuded, Dr. Weir cut off the protruding part. The hemorrhage from the wound was short, and was stopped partly by ligatures applied to the larger blood vessels, and by the use of the thermocautery.

The skin flaps of the scalp were then brought back into place and sutured, and the wound was dressed with the usual anti-septic precautions. After the operation the patient was much improved and expressed herself as feeling great releif, the symtoms of drowsiness and dizziness, as well as the partial paralysis of the right side, having disappeared entirely. A microscopic examination shows the substance to be brain matter infiltrated with a new growth, nearly an ounce of which was removed.

—M. Pasteur has informed the Academy of Sciences that he has treated during the last year 2490 persons who had been bitten by animals, and that out of this number only ten had died. Seventeen hundred and twenty-six of the patients were French.

—Dr. Francis Bacon, of New Haven, and Professor A. B. Morrill, of New Britian, are writing a text book on hygiene, which by law must be studied in all the public schools of Connecticut. It is said that it will be largely devoted to showing the effect of alcohol on the human system, which is a small part, indeed, of what it should teach. We sincerely hope that the work may be equal to the emergency, but we fear it will not come very near to our needs in this direction.

—The Laura Franklin Free Hospital for children, in 111th street, near Fifth avenue, is now completed. It is designed for the accommodation of fifty children between the ages of two and twelve, and has been established at a cost of $300,000 by Mr. and Mrs. F. H. Delano. The property with its endowment will be confided to a Board of Trustees, and its management will be put in charge of the Sisters of St. Mary of the Protestant Episcopal Church. The medical care of the hospital will be under physicians of the new school. The building consists of three stories, attic, basement and cellar. It has a frontage of 55 feet and is 58 feet deep, with an extension af 11 feet by 16 feet. A piazza, constructed of iron, extends along its entire easterly end from the basement to the attic floor. The kitchen, laundry and boiler room are built detached in the courtyard, and the adjoining lot has been laid out as a garden. Each of the principal floors contains a spacious yard, with all the necessary accessories to make it complete and perfect in every respect. The style of the building is English Gothic, and its appearance is dignified and to the purpose.

—The seven druggists in the City of Tiffin, Ohio, a place of 10,000 people, claim that they do the smallest prescription business of any place in the United States. This is owing to the fact that the three physicians doing the largest practice in the town are unable to write a prescription. Yet some people contend that doctors should be educated.

—M. Bouchard has managed to induce cataract in rabbits by introducing naphthaline into the digestive canal. The quantity required for the purpose was a daily dose equal to a thousandth part of the animal's weight.

—The effects of tobacco on the health of men of letters, and its influence on the future of French literature, is the theme for the best essay on which the French Society for the Prevention of the Abuse of Tobacco offers a prize of 1000 francs.

—It is intended to establish a professorship of the chemistry of food in the University of Berlin. The holder of the chair is to have the rank of Extraordinary Professor.

—Purification of river water by means of electricity has been undertaken at Roubaix by M. Stoffel. The gist of the process is that the ozone generated by the electrolytic decomposition of the water kills the minute organisms and oxidizes all organic substances, at the same time precipitating the carbonates in course of dissolution, thus effectively purifying the water.

—There is, says the *Scientific American*, a qualitative test for butter so simple that any housewife can put it into successful practice. A clean piece of white paper is smeared with a little of the suspected butter. The paper is then rolled up and set on fire. If the butter is pure the smell of the burning paper is rather pleasant, but the odor is distinctly tallowy if the butter is made up wholly or in part of animal fat.

—Into a solution of gum arabic stir plaster-of-paris until the mixture assumes the consistency of cream; apply with a brush to the broken edges of china and join together. In three days the article cannot be broken in the same place. The whiteness of the cement adds to its value.

—At New Holland, Ohio, Mrs. Arnold has just celebrated the one hundred and ninth anniversary of her birth; and her two sisters are still living, aged, respectively, one hundred and six and one hundred and twelve.

—In London there is a temperance hospital from which all alcoholic medicines are excluded, "without incurring any risk or delay in recovery, and with advantage rather than detriment." The death rate from the first establishment of the hospital has been but six per cent.—a rate far below that of other hospitals. Of more than three hundred surgical cases, which are generally supposed to especially demand alcohol, not a single one proved fatal without it.